THE CITADEL
CATALOGUE
1986-1987

BULLETIN
OF
THE CITADEL

THE MILITARY COLLEGE OF SOUTH CAROLINA

CHARLESTON, S.C.

FOUNDED 1842

CATALOGUE ISSUE
1986-1987

"I call, therefore, a complete and generous education that which fits a man to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war."—Milton

MAJOR GENERAL JAMES A. GRIMSLEY, JR., USA, RETIRED
President

BRIGADIER GENERAL GEORGE F. MEENAGHAN
Vice President for Academic Affairs and Dean of the College

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1986-1987 College Calendar

1986—SUMMER SCHOOL

June 9, Monday	First session registration; evening session classes begin
June 10, Tuesday	First session classes begin
June 12, Thursday	Last day to add a course or change sections in first session
June 16, Monday	Last day to add a course or change sections in evening session
June 27, Friday	Last day to withdraw with a grade of "W" in first session
July 4, Friday	Independence Day; no classes will be held
July 7, Monday	Last day to withdraw with a grade of "W" in evening session
July 10, Thursday	First session examinations begin
July 11, Friday	First session examinations end; first session ends
July 14, Monday	Second session registration
July 15, Tuesday	Second session classes begin
July 17, Thursday	Last day to add a course or change sections in second session
July 23, Wednesday	Evening session examinations begin
July 24, Thursday	Evening session examinations end
August 1, Friday	Last day to withdraw with a grade of "W" in second session
August 14, Thursday	Second session examinations begin
August 15, Friday	Second session examinations end; summer graduation exercises

1986—FALL CALENDAR

August 3, Sunday	Athletic cadre reports; 1300 muster
August 7, Thursday	Freshmen football athletes report; 1200 muster
August 11, Monday	Cadre reports; 1300 muster
August 17, Sunday	Freshman band prospects report
August 18, Monday	New cadets report; 0900 muster
August 24, Sunday	Old cadets report; 1600 muster
August 25, Monday	Registration; evening and graduate classes begin
August 26, Tuesday	Day of advisement
August 27, Wednesday	Day classes begin
September 4, Thursday	Last day to add a course or change sections
October 11, Saturday	Parents' Day (VMI)
October 15, Wednesday	Mid-term grading period ends
October 21, Tuesday	Period of academic advisement; 1100-1200
October 23, Thursday	Pre-registration for spring semester completed
October 24, Friday	Last day to withdraw from classes with a grade of "W"
November 4, Tuesday	Election Day; classes will *not* be held
November 15, Saturday	Homecoming (E. Tennessee State)
November 25, Tuesday	Thanksgiving furlough begins after last scheduled class
November 30, Sunday	Thanksgiving furlough ends; 2230 muster
December 1, Monday	Day classes resume; graduate and evening classes resume
December 8, Monday	Graduate and evening examinations begin
December 10, Wednesday	Day classes end
December 11, Thursday	Reading day; graduate and evening examinations end
December 12, Friday	Day examinations begin
December 20, Saturday	Day examinations end; first semester ends

1987—SPRING SEMESTER

January 11, Sunday	Christmas furlough ends; 2230 muster
January 12, Monday	Registration; evening and graduate classes begin
January 13, Tuesday	Day of advisement
January 14, Wednesday	Day classes begin
January 22, Thursday	Last day to add a course or change sections
March 4, Wednesday	Mid-term grading period ends
March 6, Friday	Spring holidays begin after last scheduled class
March 15, Sunday	Spring holidays end; 2230 muster
March 16, Monday	Classes resume
March 20, Friday	Last day to withdraw from classes with a grade of "W"
March 21, Saturday	Corps Day
March 24, Tuesday	Period of academic advisement; 1100-1200
March 26, Thursday	Pre-registration for fall semester completed
April 17, Friday	Good Friday; classes *will* be held
April 27, Monday	Evening and graduate examinations begin
April 30, Thursday	Evening and graduate examinations end
May 1, Friday	Day classes end
May 4, Monday	Day examinations begin
May 12, Tuesday	Day examinations end
May 13, Wednesday	Graduate commencement
May 16, Saturday	Commencement

1987 SUMMER SCHOOL

June 8, Monday	First session registration; evening session classes begin
June 9, Tuesday	First session classes begin
June 11, Thursday	Last day to add a course or change sections in first session
June 15, Monday	Last day to add a course or change sections in evening session
June 26, Friday	Last day to withdraw with a grade of "W" in first session
July 6, Monday	Last day to withdraw with a grade of "W" in evening session
July 9, Thursday	First session examinations begin
July 10, Friday	First session examinations end; first session ends
July 13, Monday	Second session registration
July 14, Tuesday	Second session classes begin
July 16, Thursday	Last day to add a course or change sections in second session
July 22, Wednesday	Evening session examinations begin
July 23, Thursday	Evening session examinations end
July 31, Friday	Last day to withdraw with a grade of "W" in second session
August 13, Thursday	Second session examinations begin
August 14, Friday	Second session examinations end; summer graduation exercises

1987-1988 College Calendar

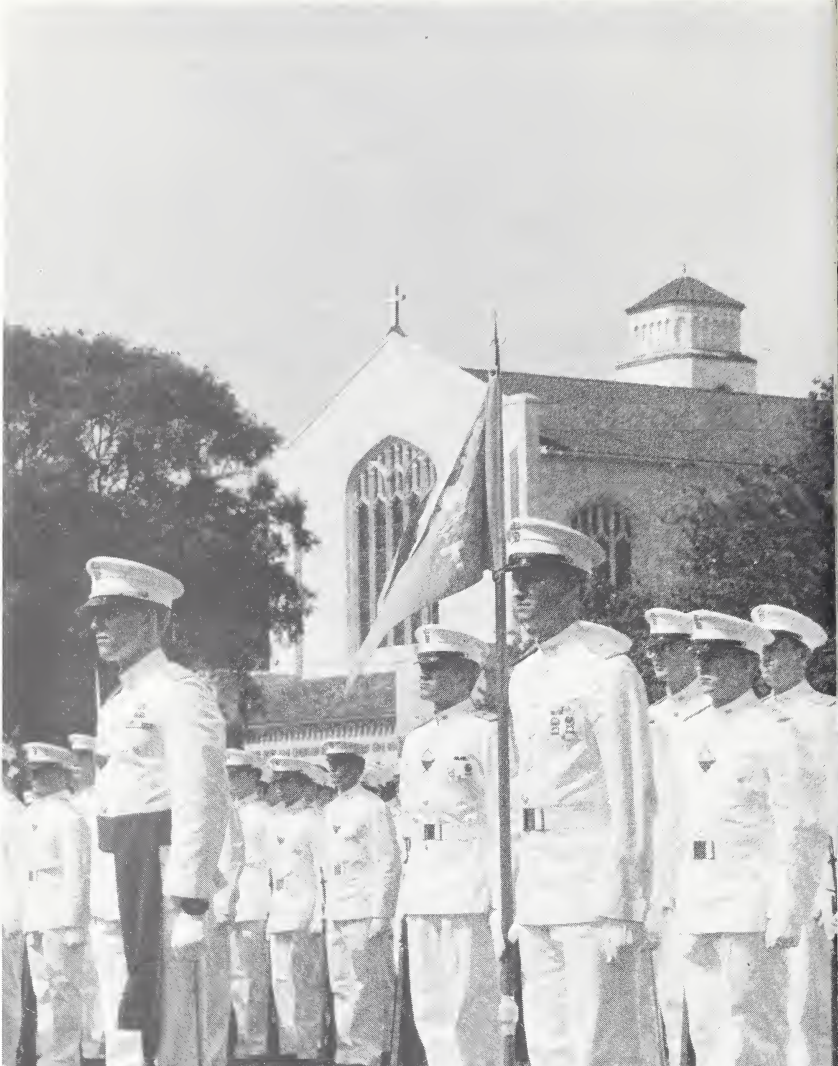
(TENTATIVE)

August 9, Sunday	Athletic cadre reports; 1300 muster
August 12, Wednesday	Freshmen football athletes report; 1200 muster
August 12, Wednesday	Cadre reports; 1300 muster
August 19, Wednesday	Freshman Band prospects report
August 20, Thursday	New cadets report; 0900
August 24, Monday	Evening and graduate classes begin
August 26, Wednesday	Old cadets report; 1600 muster
August 27, Thursday	Registration
August 28, Friday	Day of advisement
August 31, Monday	Day of advisement
September 3, Thursday	Last day to add a course or change sections
October 10, Saturday	Parents' Day (VMI)
October 14, Wednesday	Mid-term grading period ends
October 20, Tuesday	Period of academic advisement; 1100-1200
October 22, Thursday	Pre-registration for spring semester completed
October 23, Friday	Last day to withdraw with a grade of "W"
November 3, Tuesday	Election Day; classes will be held
November 7, Saturday	Homecoming (Wofford)
November 24, Tuesday	Thanksgiving furlough begins after last scheduled class
November 29, Sunday	Thanksgiving furlough ends; 2230 muster
November 30, Monday	Classes resume
December 7, Monday	Graduate and evening examinations begin
December 9, Wednesday	Classes end
December 10, Thursday	Reading day; graduate and evening examinations end
December 11, Friday	Day examinations begin
December 19, Saturday	Examinations end; first semester ends

***NOTE* On December 7, 8, and 9, class schedules to be followed are those for Wednesday, Thursday, and Friday.**

1988—SPRING SEMESTER

January 10, Sunday	Christmas furlough ends; 2230 muster
January 11, Monday	Registration; evening and graduate classes begin
January 12, Tuesday	Day of advisement
January 13, Wednesday	Day classes begin
January 21, Thursday	Last day to add a course or change a section
March 9, Wednesday	Mid-semester grading period ends
March 18, Friday	Last day to withdraw with a grade of "W"
March 19, Saturday	Corps Day
March 22, Tuesday	Period of academic advisement; 1100-1200
March 24, Thursday	Pre-registration for fall semester completed
March 25, Friday	Spring furlough begins after last scheduled class
April 3, Sunday	Spring furlough ends; 2230 muster
April 4, Monday	Classes resume
April 25, Monday	Evening and graduate examinations begin
April 28, Thursday	Evening and graduate examinations end
April 29, Friday	Day classes end
May 2, Monday	Day examinations begin
May 10, Tuesday	Day examinations end
May 11, Wednesday	Graduate commencement
May 14, Saturday	Commencement



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History of The Citadel

The Old Location and the New

From December 20, 1842, when the legislature of South Carolina passed an act providing for the establishment of The Citadel, to September 1922, the college was located on Marion Square. Since 1922, The Citadel has been situated on a beautiful campus between Hampton Park and the Ashley River.

The Origin of the Name

The Citadel derived its name from the building in which it was first housed. Erected as a state arsenal after the Denmark Vesey slave uprising n 1822, this sturdy old fortress, which still dominates Marion Square, was called The Citadel. It was garrisoned by Federal troops, then by state troops, until they were replaced in March 1843 by 20 students who comprised the first Corps of Cadets. The cadets served as guards for the state's arms and pursued a course of study designed to make them useful citizens in time of peace as well as war.

With its sister college, The Arsenal, established at the same time in Columbia, The Citadel was a part of the South Carolina Military Academy. In 1845, regulations governing the institution subordinated The Arsenal to The Citadel, and thereafter The Arsenal trained only freshmen. The Arsenal burned in 1865 and was never reopened.

The Citadel in the Civil War

The founders—men like General D. F. Jamison, who later presided over the convention at which the Ordinance of Secession was signed, and Governors J. P. Richardson and J. H. Hammond—had foreseen that the state would need men with military training. When trouble between the North and South erupted in war, the record of Citadel alumni and cadets vindicated the foresight of the founders. Of the 224 alumni living at the time of the Civil War, 193 wore the Confederate gray, all but 20 as commissioned officers and four as generals. Sixty-seven were killed in battle.

On January 9, 1861—before the firing on Fort Sumter—cadets of the Corps manned the guns which drove back from the entrance of Charleston Harbor the *Star of the West,* a steamer sent by the Federal Government to relieve the fort. Made a part of the military organization of the state by legislative act of January 28, 1861, the Corps of Cadets helped emplace and guard artillery on James Island, performed guard duty in Charleston, and on December 7 and 9, 1864, suffered several casualties in engagements with Union troops at Tulifinny Creek near Yemassee Station.

From February 18, 1865, when a Union force marched into Charleston, until April 1879, the buildings on Marion Square were occupied by Federal troops, and the operation of the college was suspended.

The Reopening After the Civil War

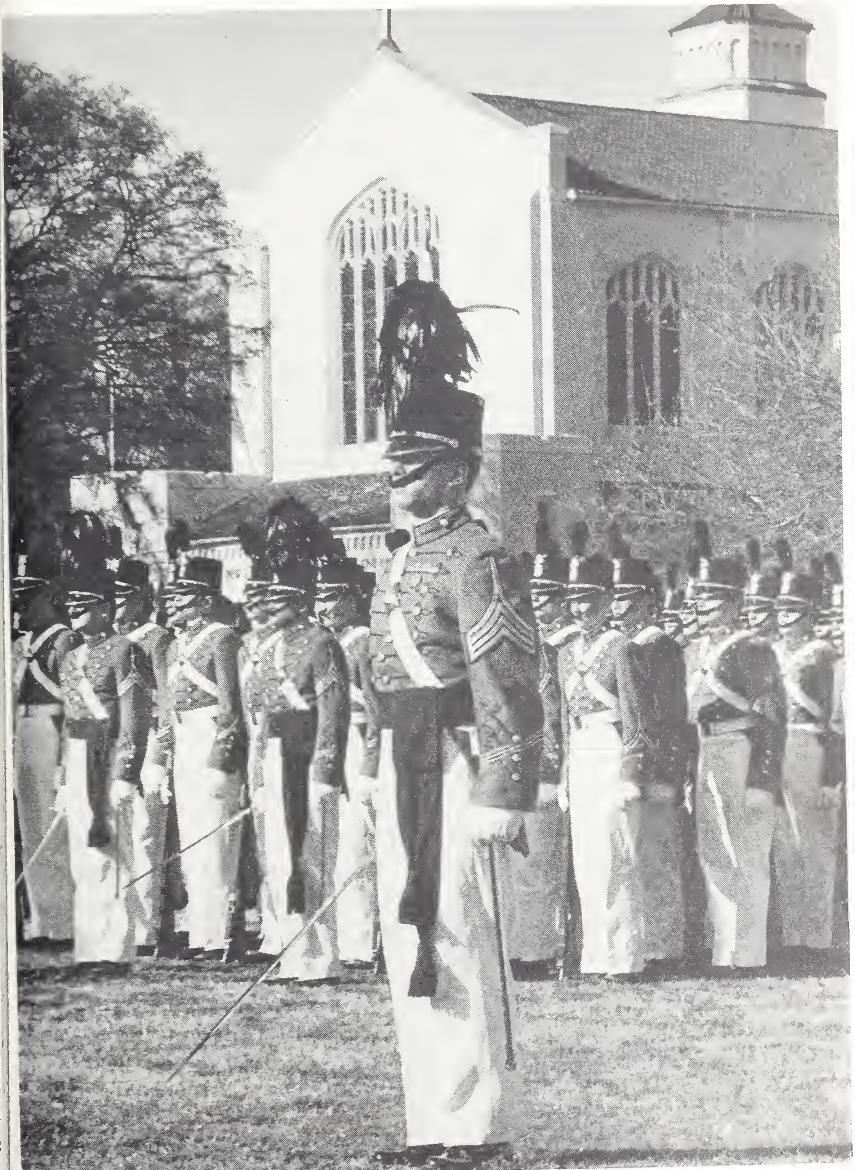
The Citadel reopened on October 2, 1882, with an enrollment of 185 cadets. Though the Corps no longer served as arsenal guard, the military system of the antebellum years was continued.

In 1910 the name of the college was changed to The Citadel, The Military College of South Carolina. During the administration of Mayor T.T. Hyde, the City Council of Charleston gave the state the present site of the college in 1918. In the fall of 1922 the college began operating at its new location.

The Student Body

In 1864 there were 145 cadets in the Corps. When the move to the new campus was made there were almost 300. In 1947-48, 2,271 students were enrolled, including cadets and veterans. Nearly 3,500 veterans of World War II and the Korean Conflict, most of whom were civilian students, attended the college under the G.I. Bill. That Citadel program for veterans ended in 1960 but was resumed in 1967. Male veteran students now attend day classes with the cadets. Since 1950 women have been admitted to summer sessions, the Evening College, which was originated in 1966, and the Graduate Program, which was established in 1968.

Seven hundred Citadel alumni served in the armed forces in World War I, and 15 were killed. About 6,000 alumni were on active service in World War II. Of these, 277 died for their country. Some 1,500 were on active duty during the Korean Conflict; 450 were in combat, and 31 gave their lives. Sixty-six made the supreme sacrifice in the Vietnam War. In late 1983 one graduate was killed in Lebanon combat and another in the invasion of Grenada. Virtually all graduates on active duty have been commissioned officers.



General Information

Accreditation

The Citadel is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools, an institutional accrediting body recognized by the Council on Postsecondary Accreditation.

Programs in Civil Engineering and Electrical Engineering are accredited by the Accrediting Board for Engineering and Technology, a specialized accrediting body recognized by the Council on Postsecondary Accreditation.

Programs for the preparation of secondary teachers at the bachelor's level, for the preparation of secondary and special education teachers at the master's level, for the preparation of guidance counselors at the master's level and specialist degree levels, and for school superintendents at the specialist degree level are accredited by the National Council for Accreditation of Teacher Education, a specialized accrediting body recognized by the Council on Postsecondary Accreditation. The head of the Department of Education serves as the Director of Teacher Education.

The Department of Chemistry is accredited by the American Chemical Society, a specialized accrediting body recognized by the Council on Postsecondary Accreditation.

The Objectives of The Citadel

The objectives of The Citadel are to develop the minds and characters of the students, increase their likelihood of success in useful pursuits, and fit them to discharge the duties of citizenship; to provide concentrations in certain professional and technical fields which will enable its graduates to compete successfully in business or the professional practice of their specialties; to ensure that its graduates are equipped in their respective fields of concentration to enter graduate, professional, or technical schools; and, through participation in an unsurpassed system of military training, to qualify for commissions in the armed forces those who desire to serve their country in that manner.

The College seeks also to provide activities, services, and facilities which contribute to the development of character, physical fitness, and moral and spiritual principles, thereby preparing students to meet the requirements of citizens and especially of leaders.

The Purpose of The Citadel's Military Environment

The Citadel is a liberal arts military college. While the college is proud of the military records of alumni and expects them to respond in national emergencies, its chief purpose is to prepare men for civil pursuits by providing a sound education reinforced by the best features of a disciplined environment.

The latter teaches the value of a methodical approach to tasks, of physical and mental fitness, and of alertness and self-confidence. It teaches how to achieve and maintain morale and discipline. It instills the conviction that sacrifice is preferable to compromise with principle, and that truth, honor, and integrity are the bases of character.

Many desirable characteristics emanate from sources other than scholarship. For this reason, The Citadel adds the code of the cadet to its academic training. The symbol of this code is the proudly worn uniform, a constant reminder that alma mater expects of every son not only the objectivity of a scholar, the public spirit of an enlightened citizen, and the honor and integrity of a gentleman, but the courage and bearing of a military leader.

Annual Health Fitness Evaluation

Cadets may be required to take a health fitness test during the early part of each fall semester. Any cadet failing to meet minimum standards will be referred to an individual fitness program.

Campus Ministry

College years are exciting times of growth and challenge, when a young person's faith and religious heritage is examined in the light of a variety of new experiences and perspectives. And if the college years are sometimes marked by "crises of faith" they are also times of a firm and deepening commitment to life-long religious values. In keeping with the wholistic educational concept at The Citadel, the services of a full-time director of chaplains, who also serves as chaplain to the Corps of Cadets, are available at all times.

To meet the religious needs of the cadets, supplementary ministeries are provided on campus, and together with The Citadel cadet religious council and cadet regimental religious officer, these campus ministry programs provide a variety of religious-cultural interchanges addressing current life situations in a learning society. This is accomplished through worship services, Monday evening denominational meetings, Thursday evening para-church Bible studies and fellowships, weekend religious retreats, ecumenical worship, and seminars on contemporary ethical issues.

Citadel Campus Ministry

Parish of Christ the Divine Teacher	
Baptist Student Union	Baptist
St. Alban's Chapel	Episcopal
Wesley Foundation	Methodist
Westminster Fellowship	Presbyterian
Lutheran Student Movement	Lutheran
Hillel Society	Jewish
Greek Orthodox Fellowship	Greek Orthodox

Bible Study and Fellowship: The Navigators, Fellowship of Christian Athletes, Officer's Christian Fellowship, and Campus Crusade for Christ.

The Summerall Chapel is designed for flexibility of utilization by major denominational groups. The inscription on the front of the chapel reads, "Remember Now Thy Creator in the Days of Thy Youth" (*Eccl. 12:1*). In addition to regularly scheduled services, the chapel is open each day from 6 a.m. until 10 p.m. for private prayer and meditation.

Citadel Chapel Choirs

The cadet chapel choirs greatly enhance the three major campus services on Sundays, and they are combined for special events such as the Christmas Candlelight program and the Baccalaureate service in May. More than 150 cadet voices are raised in song each week when the Protestant, Catholic, and Episcopal choirs gather for rehearsals and Sunday worship services.

Student Advisory Services

The Citadel offers comprehensive advisory and counseling services to all students. Inherent in the educational programs are three fundamental institutional relationships: (1) the academic advisor system, (2) the tactical officer system, and (3) the company academic advisor system. These systems, plus the other components of the advisory and counseling services available, are described below.

Institutional Advisors

Academic Faculty Advisor. Each student is assigned a faculty advisor who provides counsel concerning course selections and options within particular courses of study. Though students are encouraged to visit their advisors throughout the academic year, planning sessions are designated each semester during preregistration and registration.

Tactical Officer. Each cadet company is assigned an active duty officer who is currently serving one of the ROTC detachments at The Citadel. This officer provides counsel concerning matters of cadet lifestyle and regulations and provides leadership training while visiting cadet company areas and while supervising drill periods.

Company Academic Advisor. Each cadet company is assigned a specially chosen faculty or staff member whose responsibility is the academic well-being of the company. He works closely with the tactical officer and the cadet chain of command to ensure that academic and military requirements are compatible and that cadets take advantage of academic opportunities available to them within the company.

Specialized Advisory Services

Student Counseling Center. The Student Counseling Center, housed in the Department of Psychology, provides direct professional services to students in (a) confidential personal counseling, aimed at the early detection and prevention of student mental health problems, and (b) educational and career counseling, directed toward helping students develop realistic career goals. Counseling is provided in an informal setting where students may benefit from a relationship with an experienced counselor. Students may choose to take a group approach as an alternative to individual discussions.

The Student Counseling Center also provides for the administration and interpretation of intelligence scales, personality inventories, and vocational interest inventories. The center is a Controlled Testing Center for The Psychological Corporation and administers specialized group tests such as the Miller Analogies Test (MAT).

Appointments may be made directly by the student or by referral from others such as professors, faculty advisors, chaplains, tactical officers, medical officers, or friends.

Pastoral Counseling. Pastoral counseling is an important component in the overall design of The Citadel's advisory program. Chaplains are available to establish with students an ongoing pastoral relationship that includes dealing with life problems in the context of religious values. Realizing our varied personal limits, there are occasions when referrals will be made. However, among your chaplains, your are assured of caring, concern, and confidentiality whatever your situation.

Drug Awareness Counseling. Assistance is available to those students who have a known, or suspected, psychological dependence upon any form of drug, including alcohol. Peer, faculty or staff referrals may be made to the campus psychologist, a campus chaplain, the Director of Student Activities, the assistant to the dean of Undergraduate Studies, or the Assistant Commandant who will assist in obtaining proper counseling or treatment.

Educational Advisory Services.

1. *Counseling Services for Prelaw and Premedical Students.* The Citadel provides counseling and guidance to all students who have an interest in attending law or medical school after graduation. A student interested in a law career should seek advice early in his college career from the chairman of the Prelaw Committee. Students interested in medicine and related fields should seek early advice from the chairman of the Premedical Committee. Each committee is composed of faculty members from departments in academic disciplines related to these professional fields.
2. *The Rosemary Breckinridge Galloway Writing Center.* The Writing Laboratory offers instruction to individuals who wish to improve skills in all phases of writing. Available assistance includes individual tutorial, group instruction, and word processing. Students may "drop in" or be referred by instructors.
3. *Services for Learning Disabled.* Enrolled students who have experienced serious learning problems may take advantage of limited opportunities for diagnostic evaluation, counseling, support services designed to improve the probability of academic progress, and specialized assistance on an individual basis.
4. *Placement Services.* Career planning and placement services are available to students and alumni. Services include counseling students concerning career interests, academic programs, resume techniques, and interview procedures and providing placement help for graduating students and alumni. The placement office, located in the Alumni House, arranges interviews with visiting representatives from

business and industry and sponsors numerous seminars during the academic year.

The Daniel Library and Archives

The Daniel Library, constructed in 1960, embodies the best features of modern planning for efficient library use.

The main collection contains more than 250,000 books, bound periodicals and government documents and pamphlets. All are well catalogued and accessible to students in open stacks.

The library subscribes to some 1,400 periodicals and is a partial depository for government documents. Approximately 600 new government publications are received each year. The reference collection exceeds 12,000 volumes.

The library contains 450,000 microforms, six microform readers, and machines for student copying of microfilm and other printed materials.

Department collections in the Chemistry and Civil Engineering Departments supplement the main collection. Books in all Citadel libraries are included in the library's card catalogue.

The General Mark W. Clark Archives contains some 60,000 manuscripts, 40,000 photographs, and many films, tape recordings, newspapers, newspaper clippings, and artifacts. Invaluable as an original source of documents relating to World War II and the Korean Conflict, the archives has received national attention from archival institutions and historians.

In addition to the Clark collection, papers of General Hugh P. Harris, which give excellent background material on the development of airborne forces, are in the archives. Through an exchange microfilm program with the Eisenhower Library, the resources of that library are readily available.

The library is a member of the Charleston Library Consortium, which maintains an agreement whereby Citadel students may use facilities of any of the other colleges and universities in the area. The total library resources available to Citadel students therefore exceed 750,000 volumes.

Computer Center

The Academic Computer Center was established to provide students and faculty access to the latest developments in both computer hardware and software. To accomplish this, the full facilities of Computer Services Division at the University of South Carolina are available to The Citadel Computer Center through a high-speed data link. This system provides

DANIEL LIBRARY, THE CITADEL

access to most computer languages and to a large library of programs and subroutines which support the areas of business administration, statistics, engineering, the sciences, social services, and mathematics. In addition, a microcomputer laboratory and classroom have been established to provide students with direct access to the latest developments in hardware and software in this rapidly growing area of technology.

The Computer Science Laboratory in the Department of Mathematics and Computer Science provides our students with direct access to a state-of-the-art mini-computer. This facility enables students to gain experience with operating systems, systems hardware, and a variety of hardware peripherals.

Greater Issues Series

The Greater Issues Series presents two or more major addresses each academic year. The series was inaugurated by General Mark Clark in 1954 with a view to enhancing the preparation of our Corps of Cadets for roles as valued members of our society. Since then these addresses have brought to The Citadel an impressive group of distinguished speakers.

Speakers have included Presidents of the United States, a reigning monarch, American and foreign dignitaries, scholars, diplomats, important military figures, business leaders, and many others. These addresses are attended by the full Corps of Cadets and numerous guests of the college.

The Honor System

The honor system of the Corps of Cadets makes a unique contribution to the overall educational process at The Citadel. It is an integral part of the training received by all students, and the purpose is to inculcate a sense of honor in each Citadel graduate so that he instinctively conducts himself in an honorable manner under all circumstances.

The Honor Code states simply that a cadet does not lie, cheat, or steal, nor tolerate those who do. The code is enforced and supervised by a cadet Honor Committee composed of some 21 members of the first class who are elected in the spring of their junior year by the three lower classes. The Honor Committee has a representative in each company; one of his duties is to instruct incoming freshmen in the honor system. He also interprets it during the year for the cadets in his company.

When a cadet is reported for an honor violation, the circumstances are thoroughly investigated; then, if there is a *prima facie* case established against him, he appears before an Honor Court composed of 10 members of the Honor Committee. Cadet counsel is provided, and cross-examination is allowed. Conviction by the Honor Court requires a unanimous secret vote of "guilty." If a cadet is found guilty by the Honor Court, he is separated from the Corps of Cadets.

The Honor Committee is responsible directly to the president of the college. A faculty advisor assists the Honor Committee. This officer counsels it and acts in an advisory capacity at each Honor Court trial.

While not subject to the jurisdiction of the cadet Honor Committee, non-cadets (graduate, undergraduate, and Summer School students) are required to abide by the Honor Code. Accusations of honor violations concerning non-cadet and summer school students are handled by a board of faculty officers in a fashion similar to the cadet Honor Court. Conviction entails dismissal from the college.

Requirements for Admission

The Citadel gives equal consideration to all applicants who meet the personal and educational requirements for admission. There is no discrimination because of race, creed, or color. No single factor determines the acceptance of an applicant. The Citadel seeks to enroll well-rounded, mature students whose motivation and educational achievements indicate that they are prepared to do college level work with a reasonable probability of success. Therefore, admissions decisions are based on an overall evaluation of the following:

a. *High School Record* (courses, grades, class standing). The high school record provides insight into an applicant's motivation, study habits, and scope of interest. Particular attention is given to grades earned in English, mathematics, science, history, and foreign languages.

b. *College Entrance Examination Board Test Scores.* Considerable emphasis is placed on an applicant's test scores on the College Entrance Examination Board's Scholastic Aptitude Test and Achievement Tests. Although test scores represent only one factor in the determination of an applicant's acceptability, they tend to indicate his educational development with respect to his contemporaries; therefore, they permit a reasonable evaluation of actual preparedness and potential to do college level work.

c. *Recommendations.* The personal evaluation of an applicant by a high school official, normally the principal or the guidance counselor, must include a positive statement that the applicant is prepared, academically and emotionally, to enter college. This recommendation is given considerable weight in the acceptance decision because it represents judgements on ability and maturity which are derived from actual experience with, and observation of, the applicant during his most formative years. The recommendations of an applicant's personal references augment and reinforce the high school official's evaluation and are indispensable. They provide information relative to the applicant's background, personal characteristics, and reputation. Additional judgements concerning stability and readiness to enter college are also provided.

In general, The Citadel seeks to determine acceptability through a thorough evaluation of each applicant's character, maturity, motivation, readiness for college, amenability to a regimented life style, emotional stability, and potential to contribute to cadet life. Where any of these factors are in question, the college will obtain additional information by means of interviews with the applicant, his parents, or members of his community. If it is deemed necessary, The Citadel may request that the applicant present a written report on such subjects as his goals in life, his reasons for choosing The Citadel, or his reasons for choosing a particular major field of study.

Admission Procedure

Formal application for admission must be made by the applicant. An application form should be requested from the Office of Admissions, The Citadel, Charleston, South Carolina 29409. The Citadel admits freshmen into the South Carolina Corps of Cadets only in the fall semester of each year.

A non-refundable application fee of $15 must accompany each application. Applications for admission should be submitted early in the prospective cadet's senior year in high school. In addition, the applicant should make early arrangements to take the SAT or ACT test and have test scores sent to The Citadel. He is also responsible for having his high school transcript sent directly from his high school to The Citadel Office of Admission.

The Citadel will advise the applicant of subsequent procedural actions as they are necessary.

A reservation fee of $100 (payable within 15 days after notification of acceptance) is required of all new cadets accepted for enrollment. Payment of this reservation fee will ensure a place in the Corps of Cadets and will be applied toward the first installment of regular college fees; it is not refundable to those students who cancel their reservations after June 1.

Each applicant must undergo a thorough physical examination, and acceptance is contingent upon the results which must be received no later than 15 June. Only The Citadel's form may be used to report the results of this examination. This form also shows the immunizations required by The Citadel.

The Department of Physical Education at The Citadel has developed a Health Fitness Test which is designed to ensure that each incoming cadet is physically prepared to take full advantage of the Fourth Class Orientation Program. The results of taking this test should be reported to the Department of Physical Education on the forms provided by the admissions officer at the time of notification of acceptance.

Personal Requirements

Applicants to the South Carolina Corps of Cadets must be male, at least five feet in height, and physically qualified for military training as determined by the college surgeon. Should an accident, injury, or serious illness in any way change the physical status of the applicant after his acceptance but prior to arrival on campus, the college surgeon must immediately be informed. Any physical impairment could result in cancellation or postponement of admission. In addition, applicants must meet the following personal requirements:

a. Applicants must be at least 16 and less than 21 years of age at the time of entrance to The Citadel.

b. Applicants must be unmarried. (No married person will be admitted as a cadet. If a cadet marries, he will be discharged immediately.)

c. Applicants must not have a record of conviction of a criminal offense showing poor moral character.

d. Applicants must provide evidence from his school authorities and personal references that he is of good moral character and possesses the potential and the personality to conform to the ethical standards and the strict regimentation of cadet life. The Citadel reserves the right to require of an applicant a written certificate to this effect signed by at least two graduates of The Citadel.

Educational Requirements

An applicant for admission to The Citadel must be a graduate of an accredited high school or have satisfactorily completed the General Education Development (GED) examination. By this, the basic requirements for admission to the college comply with standards prescribed by the Southern Association of Colleges and Schools.

Each applicant is expected to have studied several subjects prior to admission. Those subjects which are required are as follows:

a. Each applicant must have four units of English.

b. Each applicant must have three units of mathematics, two of which must be algebra I and II. (For applicants who plan to major in mathematics, computer science, chemistry, physics, or engineering, the third unit must be plane geometry. Applicants who are planning to pursue one of these majors and who have not completed at least one-half unit of trigonometry will be required to complete 30-119 with a grade of C or higher prior to enrolling in calculus.)

c. Each applicant must have one unit of history.

Subjects which are recommended to be taken in high school are as follows:

a. It is recommended that at least one unit each of two laboratory sciences chosen from biology, chemistry, or physics be taken. A third unit of a laboratory science is strongly recommended. (These courses will be required beginning in 1988.)

b. It is recommended that two units of the same foreign language be taken in high school. (These courses will be required beginning in 1988.)

c. It is recommended that one additional unit of mathematics (one-half unit of trigonometry for those applicants planning to major in mathematics, computer science, the physical sciences, or engineering) be taken in high school.

An applicant desiring a B.S. degree in any of the fields of chemistry, computer science, engineering, mathematics, or physics must begin mathematics at The Citadel with 30-131 (Analytic Geometry and Calculus I). As is stated above, it is strongly recommended that the applicants background include four units of high school mathematics with at least one-half unit of trigonometry. Admission to 30-131 is permitted as follows:

a. The student may earn a sufficiently high score on the College Entrance Examination Board's Mathematics Achievement Test, Level II. (This test is designed to assess the student's knowledge of algebra, trigonometry, and function notation.) The test score, together with the student's background in mathematics, is subject to review by the Department of Mathematics and Computer Science.

b. The student may complete 30-119 (College Algebra and Trigonometry) at The Citadel with a grade of C or better. Each student whose planned major requires calculus (30-131) will be tested by the

Department of Mathematics and Computer Science during the first week of classes. Those students whose backgrounds do not include trigonometry will, without exception, be placed in 30-119. Other students whose preparation in algebra and/or trigonometry is determined to be inadequate will also be required to complete this course.

c. The student may receive the approval of the head of the Department of Mathematics and Computer Science. In all cases final determination of qualification rests with the head of the Department of Mathematics and Computer Science.

Prior to entering The Citadel as a freshman, each applicant should take steps to address any perceived weaknesses in preparation in English or mathematics. The Citadel normally offers both credit and non-credit courses in these areas during each summer. Because of the widespread use of micro-computers on campus, typing skills are recommended for incoming students.

Entrance Examinations

All applicants for admission to The Citadel are required to take the College Entrance Examination Board Scholastic Aptitude Test (SAT), or the American College Testing (ACT) Academic Admissions Test. The Mathematics Achievement Test, Level II, is *required* for applicants planning to major in engineering, chemistry, computer science, mathematics, or physics. The Citadel strongly recommends that both the English Composition and the Mathematics Achievement Test be taken by all applicants.

If an applicant lists The Citadel on his College Entrance Examination Board application as one of the colleges in which he is interested, his test scores will be sent to The Citadel approximately 30 days after the tests are taken. An applicant should complete the required entrance examinations no later than February.

Students from a foreign country whose native language is not English must receive satisfactory scores on the Test of English as Foreign Language (TOEFL). The TOEFL is prepared and administered by the Educational Testing Service of the College Entrance Examination Board and must be taken no later than March 1 of the spring preceding admission.

In order to apply for these tests, the applicant must write directly to College Entrance Examination Board, ATP, Box 592, Princeton, N.J. 08540. These tests are normally offered at locations throughout the United States and in some foreign countries four times each year, usually in September, November, February, and May. An application to take these tests must be submitted to the College Entrance Examination Board at least one month prior to the date of desired tests.

Veteran Student Admissions

Veteran applicants must meet the academic standards outlined under the Educational Requirements and Entrance Examination section of this catalogue or provide evidence of previous satisfactory college work. A Certificate of Eligibility from the Veterans Administration must be filed with the Veterans' Affairs Office and a DD Form 214 with the Admissions Office.

Since veteran applicants are civilians, they are not subject to RPE and ROTC requirements, nor are they permitted to attend ROTC classes.

In order to be accepted as a veteran student at The Citadel, the following actions must be completed:

a. submit a complete application with a non-refundable $15 application fee;

b. request all high schools and colleges attended to send official transcripts (If high school was completed by taking the GED test, submit a copy of the equivalency certificate.);

c. request that the College Entrance Examination Board send to The Citadel, Office of Admission, your latest SAT scores (If you have not taken the SAT, please refer to the Entrance Examination section of this catalogue.);

d. provide The Citadel Veterans Office with a certificate of eligibility which can be obtained from the Veterans' Administration office. *(Eligibility for such a certificate is an absolute requirement for admission.)*

Transfer Procedures and Transferable Credit

The Citadel accepts three types of transfer credit. Credit may be transferred from another accredited college, through the CEEB Advanced Placement Program, or through the CLEP examination program.

Transferring Credits from Another Accredited College — Students who are entering The Citadel for the first time and who have attended another accredited college(s) must have an official transcript(s) sent directly from the college(s) to The Citadel Office of Admission. *It is the responsibility of the entering student to have transcripts sent to The Citadel.* Only courses which are comparable to specific courses offered by The Citadel and in which grades of C or better have been earned will be considered for transfer. *Course work taken at another college and accepted for transfer by The Citadel, need not be applicable to a student's major.* Courses transferred from another college will be noted on the student's Citadel transcript but will not be reflected in the student's Grade Point Ratio at The Citadel. All transcripts sent from another college to The Citadel become the property of The Citadel and can not be issued to the student or a third party.

Students who wish to take transferable course work while away from the college *must* obtain official prior approval through the Office of the Registrar.

CEEB Advanced Placement Program — The Citadel awards advanced placement credit for applicants according to the following guidelines. (Applicants desiring Advanced Placement credit must have the official score report form sent directly to The Citadel from CEEB.)

ART (History)	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Art (History) will be awarded credit for 54-206.
BIOLOGY	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Biology will be awarded credit for 47-103 and 47-104.
CHEMISTRY	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in chemistry will be awarded credit for one of the following chemistry sequences: 40-101-111 and 40-102-112 or 40-103-113 and 40-104-114.
COMPUTER SCIENCE	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Computer Science will be awarded credit for 36-201.
ENGLISH (Language and Composition)	Applicants scoring 3, 4, 5 on the Advanced Placement examination in English (Language and Composition) will be awarded credit for 80-101.
ENGLISH (Literature and Composition)	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in English (Literature and Composition) will be awarded credit for 80-102.
FRENCH (Language)	Applicants scoring 3, 4, or 5 on the Advanced

	Placement examination in French (Language) will be awarded credit for 94-101 and 94-102.
FRENCH (Literature)	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in French Literature will be awarded credit for 94-201 and 94-202.
GERMAN (Language)	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in German (Language) will be awarded credit for 93-101 and 93-102.
HISTORY (American)	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in History (American) will be awarded credit for 70-101 and 70-102.
HISTORY (European)	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in History (European) be awarded credit for 70-231 and 70-232.
LATIN (Vergil)	Applicants scoring 3, 4, or 5 on the Advanced Placement examination Latin (Vergil) will be awarded credit for 91-101 or 91-102.
LATIN (Catullus, Horace)	Applicants scoring 3, 4, or 5 on Latin (Catullus, Horace) will be awarded credit for 91-101 or 91-102.
MATHEMATICS AB	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Mathematics AB will be awarded credit for 30-131.
MATHEMATICS BC	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Mathematics BC will be awarded credit for 30-131 and 30-132.
MUSIC (Listening and Literature)	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Music (Listening and Literature) will be awarded credit for 54-206.
MUSIC THEORY	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Music Theory will be awarded credit for 54-209.
PHYSICS B	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Physics B will be awarded credit for 26-203-253 and 26-204-254 or 26-205-255 and 26-206-256, as appropriate.

PHYSICS C: Mechanics	Applicants with a calculus background (e.g. a score of 3, 4, or 5 on the Mathematics AB or Mathematics BC examination) and scoring 3, 4, or 5 on the Advanced Placement examination in Physics C: Mechanics will be awarded credit for 26-210-260.
PHYSICS C: Electricity Magnetism	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Physics C: Electricity and Magnetism will be awarded credit for 26-211-261, if they have a calculus background (e.g. a score of 3, 4, or 5 on the Mathematics AB or Mathematics BC examination) and have a score of 3 or higher on the Physics C: Mechanics examination.
SPANISH (Language)	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Spanish Language will be awarded credit for 96-101 and 96-102.
SPANISH (Literature)	Applicants scoring 3, 4, or 5 on the Advanced Placement examination in Spanish (Literature) will be awarded credit for 96-201 and 96-202.

College Level Examination Program (CLEP) — The Citadel also awards credit through CLEP Subject Examinations as provided by the Council on College-Level Examinations of the College Entrance Examination Board. The following conditions must be met:

1. The score must be equal to or above the mean score achieved by students on the national norm sample who earned a grade of "C" in a regular college course in the subject.
2. The amount of credit to be awarded will be determined by the scope of material measured, i.e., one or two semesters.
3. Credit will be awarded only for those subject examinations for which there is an equivalent course at The Citadel.
4. No student will be permitted to acquire more than 30 semester credit hours through CLEP Subject Examinations.
5. Students will not be granted credit through CLEP for any course previously taken at The Citadel, whether passed or failed, either for credit or audit.

Advanced Language Placement — Advanced language placement, other than through the CLEP or AP Program described above, may be granted upon the recommendation of the head of the Department of Modern Languages. Normally, a a student will be allowed to bypass no more than 6 hours of the 12 hour language requirement. No credit is awarded for the bypassed course or courses; electives must be taken to replace the bypassed courses.

The Department of Modern Languages is responsible for the proper placement of students in all language courses. For further information, please refer to the modern languages section of this catalogue.

Qualified students who have had at least three years of a foreign language in high school and elect to continue in that language at The Citadel will enroll in intermediate (201-202) or higher level courses. Such students will be allowed to enroll in the basic level courses (101-102) only upon the recommendation of the department head. Completion of 6 hours of intermediate or higher level courses will satisfy The Citadel's two-year foreign language requirement.

In regard to the modern language requirement, a foreign national or a student whose native language is not English will confer with the department head for appropriate placement. Such students will not be allowed to take for credit courses in their primary language below the junior level.

In all cases final placement will be accomplished after consultations during the first week of classes.

Initial Acceptance and Withdrawals

New cadets are admitted to the Corps of Cadets only in the first semester of the school year but may commence their academic work in the preceding summer. Veteran students may be admitted at the beginning of each semester or either summer term.

If a cadet finds it necessary to withdraw from The Citadel during the college year or does not wish to return to The Citadel in August following any college year, a written request for an honorable discharge must be sent by his parents or guardian to the registrar.

If a veteran student finds it necessary to withdraw or not to return the following semester, he must submit to the registrar a written request for a discharge.

Academic Policies

Any exceptions to policies stated in this catalogue, purported to have been made verbally to a student by an official of the college, are null or void unless documented with a signed statement from the college official.

Grades

Only letter grades are given to evaluate a student's progress. The following definitions of letter grades are applicable:

1. "A" represents superior attainment on the part of the student.
2. "B" represents work that is clearly above the average, but not superior.
3. "C" represents average attainment of the basic standards set for the course.
4. "D" represents a minimum attainment of the basic standards.
5. "F" represents failure.
6. "W" represents withdrawal from a course prior to the official deadline which is indicated in the college calendar and is no earlier than the Wednesday following the mid-term grading period. Beyond that point, the student will receive the grade of F should he fail to complete the course or complete it successfully. Under extremely extenuating circumstances, the grade of W may be awarded after the established deadline to withdraw from a course. Such an action is taken only upon the recommendation of the instructor and requires the concurrence of the department head and the dean of undergraduate studies. Supporting evidence is the responsibility of the student and must be submitted in writing.
7. The notation of "I" (for Incomplete) is used in those rare instances when course requirements have been very nearly met but for authorized reasons (illness, injury, family emergency, etc.) cannot be completed during the current semester. To be eligible for the grade of I, the student's work must be satisfactory at the time he is forced to terminate his participation in the course. Unsatisfactory work this late in a course should result in a failing grade. The grade of I must be cleared during the next semester in residence or

within one year, whichever comes first, or the I becomes an F. The summer session will not be considered a semester in this case. A student may not officially enroll in a course in which he currently has an I. An extension of time due to extenuating circumstances may be authorized by the department head and the dean of undergraduate studies upon the recommendation of the instructor. The removal of the incomplete is the responsibility of the student.

Should a student fail to complete a semester or summer session for any reason, the grade in each course in which the student is then enrolled shall be F, I, or W as determined by the individual faculty member in consultation with the dean of undergraduate studies.

No numerical symbol, bracket, or percentage is assigned the equivalent of any grade. Arbitrary distribution of grades according to some formula or curve is not permitted. However, by means of departmental supervision and consultation between instructors, every effort is made to obtain consistent grading procedures within the department.

Students are expected to use proper grammar in all their course work, whether written or oral. Proper usage is expected at the college-level and is required by all professors.

Any changes of grade deemed necessary by the faculty member concerned must be made within 30 days after the beginning of the next semester following the recording of the grade. The summer session will not be considered a semester in this case. After grades in a course have been submitted to the records office of the registrar, every request for a change of grade must be approved by the head of the academic department involved and the dean of undergraduate studies.

Students are not permitted to register for a grade in any lower level course, whether previously attempted or not, if credit has been received for a sequential course for which the lower level course is a prerequisite. Whenever a course is repeated, whether previously passed or not, *all* credit hours attempted and *all* quality points earned will be reflected in the GPR of the student. Should a student repeat and fail a previously passed course, the last grade of record is used to determine whether course requirements for graduation have been met.

Grade reports are provided at the end of each semester. Mid-term progress reports are made available to show the status of the student's academic work.

Grade Point Ratio Computation

For purposes of ascertaining grade-point ratio to determine class or eligibility for promotion and graduation, grades are weighted as follows:

Grade	Grade Points Per Semester Hour
A	4
B	3
C	2
D	1
F, I, W	0

The grade-point ratio for any semester is determined by dividing the total number of quality points earned by the total number of credit hours attempted, including the hours for which the following grades are received: A, B, C, D, F.

The cumulative grade-point ratio on which promotions, graduation, probation, and academic discharge are based is determined by dividing the number of quality points earned at The Citadel by the number of credit hours of record at The Citadel. Number of credit hours of record for this purpose includes *all credit hours attempted* at The Citadel for which the following grades were received: A, B, C, D, or F. The number of quality points earned includes *all* quality points associated with credit hours of record at The Citadel.

As a member of the Charleston Higher Education Consortium, The Citadel is party to the cross-registration policies for student interchange among the five local post-secondary institutions. In addition to The Citadel, the Consortium member colleges are: the Baptist College of Charleston, the College of Charleston, the Medical University of South Carolina, and Trident Technical College. Under the student interchange agreement and with the approval of the academic deans concerned, students in good standing at The Citadel may enroll in courses offered at any of the Consortium institutions. Cadets may participate in the cross-registration program with Consortium institutions only under exceptional circumstances and with the approval of the dean of undergraduate studies.

In computing a semester or cumulative GPR, quality points and hours associated with transfer credits are not considered. Courses *properly approved* in advance to be taken at another institution in the Charleston Higher Education Consortium will be included on the student's transcript as courses taken in residence at The Citadel, and quality points and hours from such courses will be included in GPR computations.

Transfer Credits

Entering students who desire to transfer credits from other accredited colleges must have official transcripts sent to the records office of The Citadel and must provide catalogue descriptions of the courses involved. The head of The Citadel academic department concerned, or the registrar by delegation, will then evaluate the courses to determine those for which transfer credit will be allowed. Only courses in which grades of "C" or better have been earned will be considered for transfer credit.

Students who expect to continue enrollment at The Citadel or to return after withdrawing may, with the approval of their deparment heads, take courses at other accredited institutions for transfer to The Citadel. To be eligible for transfer, each course must be certified by the department head concerned (or the registrar by delegation) as acceptable to be taken away from The Citadel and as equivalent to a course at The Citadel. The semester hours transferred will not be greater than for the equivalent Citadel course, and courses previously passed at The Citadel will not be accepted for transfer.

All transfer credits are provisional. If a department involved determines within four weeks after classes begin that the student is not prepared to take a course for which the course transferred is a prerequisite, the allowance of credit is withdrawn, and the student must take the prerequisite course at The Citadel.

To be eligible for graduation, all students, including transfer students from other colleges, are required to earn in the day program at The Citadel a minimum of one-half the semester hours prescribed for the major course of study.

In addition, to ensure the academic work in the major is current, a student seeking the bachelor's degree shall receive at least 30 of the final 37 credit hours at The Citadel within a period of five years of the date of graduation. Credit gained through AP or CLEP may not be counted among these 30 hours. Any exceptions to this rule must be approved by the appropriate department head and the dean of undergraduate studies.

Degrees

The degree of Bachelor of Arts is conferred upon satisfactory completion of the Chemistry, English, History, Mathematics, Modern Languages, Political Science, or Psychology program of study. The Bachelor of Science is conferred upon satisfactory completion of the Biology, Chemistry, Computer Science, Education, Mathematics, Physical Education, or Physics program.

The degree of Bachelor of Science in Business Administration is awarded to students who complete satisfactorily the program in Business Administration.

Graduates in Civil Engineering receive the degree of Bachelor of Science in Civil Engineering. Graduates in Electrical Engineering receive the degree of Bachelor of Science in Electrical Engineering.

Requirements for Graduation

For graduation, a student must complete one of the departmental major courses of study stated in the catalogue bearing the number of the academic year in which he entered and must achieve a minimum grade-point ratio of 2.00 based on all credit hours of record and all quality points earned at The Citadel.

A student must complete, in residence, a minimum of one semester with at least 12 semester hours of passing work, approved by the department concerned, after his final change of major prior to graduation. (For purposes of this policy, both halves of a summer session will be considered a semester.)

To ensure that academic work in the major is current, a student seeking the bachelor's degree shall receive at least 30 of the final 37 semester hours at The Citadel within a period of five years of the date of graduation. Credits gained through AP or CLEP may not be counted among these 30 hours. Any exceptions to this rule must be approved by the appropriate department head and the dean of undergraduate studies.

Candidates for degrees who have attained an overall grade-point ratio of at least 2.00 and who do not complete all requirements for graduation when scheduled may take not more than two approved courses, totaling no more than 7 semester hours, at another institution for transfer to The Citadel. Prior approval of these courses by the department head concerned is mandatory. Normally the only courses which can be taken elsewhere will be those not offered at The Citadel during the summer session or semester in question.

A curriculum or graduation requirement, if altered, is not normally made retroactive unless the alteration is to the student's advantage and can be accommodated within the span of years normally required for graduation. Should a requirement be made retrospective, ample warning will be given in writing.

In addition to the formal academic credits required for graduation, the candidate must have satisfied all disciplinary requirements. Recommendations for graduation are made by the Academic Board to the Board of Visitors, which in turn awards the degrees.

Combining Courses

Courses may be combined to meet *elective credit* requirements under the following circumstances:

1. Courses to be combined (a lecture course, or a lecture and its associated laboratory) must each carry at least 3 hours credit.
2. The courses to be combined must all be offered by the same department.
3. Approval of the head of the department in which the student is majoring and the dean of undergraduate studies must be obtained.

Course Substitutions

The requirements for completion of an academic major are shown in this catalogue as a *minimum number of courses* and the associated credit hours. Each course has been carefully selected by the academic department offering the major in question and makes a specific contribution to the overall degree program. Course substitutions are, therefore, made only when justified by truly extenuating circumstances. Such circumstances must be presented in writing by the student, and the requested substitution must have the support of the faculty advisor, the department head, and the dean of undergraduate studies.

ROTC Graduation Requirements

A cadet must be enrolled in and successfully complete ROTC every semester during which he is enrolled at The Citadel or until he has completed eight semesters. Voluntary withdrawal from or failure to register for ROTC courses is not permitted. If there are extenuating circumstances beyond the cadet's control, a cadet may withdraw or not register for ROTC provided he has the recommendation of the commanding officer of the ROTC unit involved and the approval of his academic faculty advisor and the dean of undergraduate studies. He must, however, make up the ROTC courses missed in order to graduate. Students who must remain at The Citadel beyond the normal four years and who have ROTC requirements to complete will be retained as cadets and will not normally be designated as day students.

Non-cadets are not normally permitted to enroll in ROTC classes, and

ROTC classes may not be used to satisfy elective requirements in any course of study.

Course Load Requirements

A full-time student must be enrolled throughout each semester in course work with credits totaling at least 12 hours. A cadet *must* be a full-time student. Any cadet who drops below the 12 credit hour minimum at any time during a semester *will* be discharged immediately, unless there are extremely extenuating circumstances.

Course Overload

Outlines for the various academic majors are detailed in the courses of study section of this catalogue. Course selections for each semester have been carefully determined by each individual academic department on the basis of sequence and content. Following a particular course of study will ensure normal progress toward completion of minimum degree requirements within eight semesters.

For a variety of reasons, a student may find it desirable to take an additional, or overload, course during a particular semester. An overload course is defined to be any course taken in addition to those prescribed in the student's course of study for the semester in question. Such overloads are restricted as follows:

1. No more than one overload course may be taken during a particular semester.
2. During the previous semester (summer sessions will not serve as semesters), the student must have:
    a. earned a GPR of at least 2.00.
    b. failed no courses.

Since this is an action which should not be taken lightly, the student must discuss all course overloads with his faculty advisor. Should either of the two conditions stated above not be met, the student must execute an appropriate form which can be obtained from the office of the dean of undergraduate studies. This form requires the approval of both the faculty advisor and the head of the department in which the student is majoring. Questions which cannot be resolved at the department level will be referred to the dean of undergraduate studies. Unless there are extenuating circumstances, failure to obtain proper authorization for a course overload will result in the student's being required to withdraw from the additional course.

Completed forms will be retained in the office of the department head.

Pass-Fail and Audit Status

Junior and seniors with a cumulative grade-point ratio of 2.0 or higher may elect courses on a Pass-Fail option, but no more than one may be elected each term or a total of four for graduation. A student may take the Pass-Fail option only on elective courses. The student may not change his decision to take the course on the pass-fail basis or for a letter grade after the first two weeks of the term. Courses completed on the pass-fail option carry graduation credit but no quality points and are not included in GPR computations.

Instructors report grades as usual, A through F. The records office translates grades as follows:

1. A grade of A through C as S (satisfactory, pass — for credit)
2. A grade of D or F as U (unsatisfactory, fail — no credit)

Students who are taking a course under the Pass-Fail option and who wish to be considered for Dean's List or Gold Star honors must meet these criteria:

1. The GPR requirements outlined earlier must be met on 12 or more semester hours beyond the Pass-Fail course.
2. The Pass-Fail course must be completed satisfactorily.

In determining the GPR for graduation with honors and for the position of First Honor Graduate, courses taken under the Pass-Fail option will be treated as transfer courses.

Any student who is eligible to enroll in a particular course may, with the approval of the instructor and the dean of undergraduate studies, audit that course for no credit. There will be no additional charge if the student is enrolled for credit in courses totaling 12 or more hours. From students taking fewer than 12 credit hours, registration fees and 50 percent of the tuition charge for the course will be assessed.

The student may not change his decision to take the course on the audit basis rather than for credit after the first two weeks of the term. Grades will not be given for courses taken in audit status.

Class Attendance Policy

The cornerstone of undergraduate education is communication between the teacher and the learner. At The Citadel, class attendance is expected, and students are expected to be punctual. From reveille at 0645 until taps at 2400, the cadet's day is quite full. However, during these periods Monday through Friday, less than 20% of the time is designated for classes and laboratories, and these experiences are not to be missed. Therefore, except as indicated below, class attendance is *mandatory*.

Although class attendance is of higher priority than other normal activities, it is acknowledged that cadets must miss classes for certain authorized reasons — athletic events and connected travel, special events and ceremonies, daily and special guard duties, and the like. We also realize that certain medical and personal emergencies will require the missing of scheduled classes. Should it be necessary to miss a class for any reason, the student will, unless circumstances preclude it, notify his professor in advance and will be responsible for any material covered in his absence. Assigned tests are *mandatory*. Unless authorized to the contrary by the professor, such tests take precedence over *all* other duties or activities.

Should a cadet miss a class or a laboratory for unauthorized reasons, he will be required to serve five (5) confinements and will be assessed five (5) demerits for each such absence.

Should a non-cadet have to miss a class because of sickness or other circumstances beyond his control, the professor is responsible for designating the absence as authorized or unauthorized. Any questions, by students or faculty, concerning such designations will be referred, in writing, to the dean of undergraduate studies. The accumulation of *six (6) unauthorized class absences* in a particular course *will* result in the non-cadet being dropped from that course with the grade of F for excessive absences.

For any student, absences, whether authorized or unauthorized, in excess of 20% of the meetings of a particular course can, at the discretion of the professor, result in a grade of F in that course. In such cases, the attendance record kept by the professor is official.

As soon as the instructor has determined that a grade of F for excessive absences is warranted, the dean of undergraduate studies is notified, and the student is dropped from the course in question. If as a result of this action the total hours carried for a full-time student drops below 12 credit hours, the student is subject to immediate discharge from the college unless there are extremely extenuating circumstances. Such circumstances must be presented in writing to the dean of undergraduate studies.

Academic Warning List

The Academic Warning List is a first warning to students that their academic progress is inadequate, and for cadets this status carries reduced privileges and required participation in the Supplemental Study Periods Program. Students failing more than *four* semester hours in one or more courses at the end of a semester will be placed on the Academic Warning List. They are removed from this list at the end of the next grading period, end of semester or mid-term, if they are failing four or fewer hours in one or more courses. Neither summer school credits nor transfer credits affect the Academic Warning List.

Students failing more than four credit hours in one or more courses at mid-semester will not be placed on the Academic Warning List, but may, at the discretion of the dean of undergraduate studies, be required to participate in the Supplemental Study Periods Program.

Academic Criteria for Continuance

In order to be eligible to continue into the next academic year, a student must meet minimum standards regarding hours earned and cumulative grade point ratio maintained.

A full-time student (one carrying at least 12 credit hours each semester) must pass at least 24 semester hours in each 12-month period after entrance. A part-time student (one carrying less than 12 credit hours each semester), must, in that same period, pass at least 50 percent of the hours attempted.

Each student must maintain a minimum cumulative grade point ratio as prescribed in the table below. This grade point ratio is calculated as described above.

The column "Credit Hours of Record" includes all credit hours recorded on the student's transcript, whether taken at The Citadel or a Consortium institution or transferred from another college.

Credit Hours of Record	Grade-Point Ratio for Continuance (on probation)	Grade-Point Ratio for Continuance (without probation)
0-39	1.00	1.10
40-69	1.25	1.40
70-79	1.50	1.70
100 & above	1.75	1.90

This table traces the academic progress a student must make toward attaining the minimum acceptable overall grade point ratio of 2.00 as his credit hours of record approach that total which is required in the course of study of his selected major.

Academic Discharge

A student who fails to meet either or both of the academic criteria for continuance (see above) will be discharged for academic deficiencies. Although academic probation is assessed each semester, academic discharges are awarded only at the end of each second summer session.

Students who voluntarily withdraw at other times or who are discharged for other reasons will have the academic status of their discharges assessed by the Readmissions Advisory Committee upon application for readmission.

Minimum grade-point ratios for the various categories are as shown above; however, the minimum GPR required will not be raised as a result of summer school work. That is, students moving from one category to the next higher category as a result of hours of record acquired in summer school at The Citadel or elsewhere will be required to meet the GPR minimum of the lower category for continuance in the following fall term. The decision as to whether this continuance will be with or without probation is made by the dean of undergraduate studies.

A student will not be subject to academic discharge rules until the end of his second semester at The Citadel. For this purpose, the two summer sessions will not be considered as a semester.

A student who is discharged for academic reasons for the first time may apply for readmission after being out of school for one semester. (Summer school does not constitute a semester in this instance.) If approved by the Readmissions Advisory Committee, he will be readmitted on a probationary status. Probationary status requires that he must, by the next assessment of his academic status, have attained the minimum ratio of quality points to hours attempted for his category based on hours of record. The status of students who are readmitted in the fall semester is reassessed in the following August. The status of students who are readmitted in the spring semester is reassessed in the second August after readmission. Additional probationary conditions may be imposed by the Readmissions Advisory Committee or the dean of undergraduate studies. Failure to meet probationary conditions of readmission will again subject the student to discharge for academic deficiency. The probationary period for part-time students will be determined by the dean of undergraduate studies.

Academic Probation

A student is placed on academic probation for any semester when his cumulative grade point ratio based on courses taken at The Citadel fails to meet the requirements for continuance without probation as outlined in the table above.

A student will be removed from academic probation after the semester his cumulative grade point ratio meets the requirements of the table. Satisfactory progress for a part-time student will be determined by the dean of undergraduate studies.

Several academic departments have established criteria which must be met by their majors. Students not meeting these criteria are placed on probation within that department. This status is not related to and does not affect the academic probation which is awarded by the college. Where departmental probation has been established, a full explanation is provided within the section of this catalogue which describes that major.

Eligibility for cadet privileges normally accorded academically proficient cadets will be substantially reduced to the extent determined by the dean of undergraduate studies and the commandant of cadets for those on academic probation. In addition, cadets on academic probation are required to participate in the Supplemental Study Periods Program.

Supplemental Study Periods

Supplemental study periods (SSP's) are established to provide *opportunities for academic improvement* for three groups of cadets: (a) those on current Academic Probation or Academic Warning Lists; (b) other freshmen and sophomores whose average GPR was less than 2.0 on the most recent grade report (mid-term or end-of-semester); and (c) other cadets as designated by the dean of undergraduate studies. Cadets in these two categories will be required to log four extra hours of study time each weekend by choosing any *two* of these two-hour time blocks for their extra study time.

Friday	*Saturday*	*Sunday*
1900-2100	1300-1500	1300-1500
	1600-1800	1600-1800
	1900-2100	

During the time blocks which they themselves have selected, cadets will be in their rooms studying. Individual companies (i.e., the company academic officers) shall have the authority to make minor modifications to this general policy to suit particular circumstances which may arise within their companies. If the company academic officer feels that a participant from category (b) in the SSP program has furnished sufficient evidence of academic improvement after a few weeks of participation, that student may be excused from the SSP program before the next grade reports are issued. There are limits to the flexibility of these guidelines, however, in no case shall a cadet be required to log more than four extra study hours, and in no case will the assignment to SSP cancel weekend or overnight leave privileges to which the student might be entitled.

The responsibility for supervision of this program within each company will be determined by that company's academic leadership. For instance, the officers, the first sergeant, and the academic sergeant may rotate supervisory responsibilities over the weekend. Supervisory duty consists of maintaining a sign-in/sign-out sheet with the roster of cadets assigned to SSP each weekend and being available to help SSP participants find assistance with their academic work should they desire it. In no case shall the weekend duty NCO be delegated this additional responsibility.

Readmission Policy

A student wishing to return to the day program of The Citadel after he has been discharged must file an application for readmission with the registrar who will process the application upon receipt and submit all information to the chairman of the Readmissions Advisory Committee. The deadline for receipt of an application for readmission for the spring term is November 1 and for the fall term is July 1. Applications postmarked after these dates will not be processed.

Students who are discharged due to academic deficiencies will be ineligible to apply for readmission consideration until the lapse of one semester of the regular school year. (Neither of the two summer sessions is considered a semester in this instance.) A student who has been discharged for academic deficiencies and is readmitted will be on academic probation during the semester of his return.

A student discharged a second time for academic reasons will not be considered for readmission.

Academic Promotions and Classifications

Students meeting the minimum grade point ratio for continuance in college without probation will be promoted to successive classes at the end of each semester provided they are not more than eight credit hours behind in their major course of study.

Cadets are arranged in four distinct classes, corresponding with the four years of study. Cadets pursuing the first year's course constitute the fourth or freshman class; those taking the second year's course, the third or sophomore class; those in the third year's course, the second or junior class; and those in the fourth year's course, the first or senior class.

Day Student Status

Only students who have cadet, day, or veteran status may attend classes in the day program. Day student status is reserved for the cadet who meets academic criteria for continuance, has completed eight semesters in the Corps of Cadets and eight semesters of ROTC, and has *very nearly* met all graduation requirements. When a cadet becomes eligible for day student status, he will be required to submit to the registrar a plan, properly endorsed by his faculty advisor, for meeting graduation requirements. A student will not normally be permitted to continue in day student status for more than one calendar year. If during this period satisfactory progress toward the completion of degree requirements is not made, the student will be discharged from the college for failure to meet academic standards.

A cadet who has been awarded a baccalaureate degree through the cadet program is no longer eligible for day student status except when pursuing a second baccalaureate degree as outlined below.

Should a student become ineligible to continue his studies in cadet, day, or veteran status, he cannot earn a degree which is offered through the day program.

Pursuing A Second Baccalaureate Degree

Under certain circumstances, a student may wish to pursue two *different* baccalaureate degrees. Although this is not encouraged, it will be allowed under the following conditions:

1. the student must complete all requirements of each degree;
2. the student must complete a minimum of 30 hours beyond the initial degree;
3. the student must have completed most requirements for the second degree while pursuing the initial undergraduate degree;
4. the second degree must be pursued in day student status;
5. the student must normally complete requirements for the second degree within one calendar year of completing the initial undergraduate degree.

A student who has earned a baccalaureate degree through the cadet program will not be *readmitted* as a day student to pursue a second undergraduate degree.

Graduate Courses

Under the following conditions, undergraduates may be permitted to enroll in graduate courses offered by, or through, The Citadel:

1. that the student be of certifiable and exceptional ability (as reflected by a provisional acceptance in the particular graduate program of The Citadel, a cumulative GPR of at least 3.5 and other supporting data) or be granted conditional acceptance by a cooperating university to enroll in courses for graduate credit as administered by that university;
2. that the student be permitted to take one graduate course only;
3. that the student be permitted to take the course only in the final semester of the senior year;
4. that the student have completed all requirements for the undergraduate degree or will complete them in the semester in which the graduate course is taken;
5. that the taking of the course be approved by the department head of the major, the department head in whose department the student will take the course, and the dean of undergraduate studies;
6. that the credit for the graduate course will not be applied toward requirements for a baccalaureate degree and that hours of record and numbers of quality points will not be affected by such courses;
7. that the awarding of the graduate credit be contingent upon the completion of the baccalaureate degree requirements in that semester.

ROTC Commissioning Requirements

Although cadets are required to enroll in ROTC during every semester during which they are enrolled at The Citadel or until they have completed eight semesters, they are not required to accept, nor are they guaranteed to be offered, a commission in one of the Armed Forces.

A cadet pursuing a commission through an ROTC program must complete the entire ROTC program of the applicable service or that portion specified by the commanding officer of the ROTC unit concerned.

Transfer Between ROTC Programs

The early selection of a service's ROTC program by a cadet is extremely important since the entire curriculum of each ROTC program differs from service to service and each is sequential and progressive. A transfer between programs, therefore, may prove to be undesirable. For these reasons, a cadet who transfers from one ROTC program to another after the freshman year may be required to make up certain ROTC courses so that he will have the proper background for the new program. Any courses required to be made up will be in addition to the normal ROTC requirements for graduation. As noted above, a cadet who is pursuing a commission will normally be required to complete a service's entire ROTC program.

As in the case of a change in an academic major, a cadet may not transfer between ROTC programs without written approval. Applications for transfer must be submitted on forms available from the registrar. All students must consult with both the losing and gaining ROTC commanding officers to ascertain the effect of the proposed transfer.

In no case of a transfer between ROTC programs will the number of ROTC semesters required for graduation be reduced, nor may more than 16 credit hours be applied toward completion of graduation requirements.

Confidentiality of Student Records

The Family Educational Rights and Privacy Act of 1975 is a federal law which states (a) that a written institutional policy concerning educational records must be established and (b) that a statement of adopted procedures covering the privacy rights of students must be made available. The law provides that the institution will maintain the confidentiality of student education records.

The Citadel accords all the rights under the law to students who are declared independent. No one outside the institution shall have access to nor will the institution disclose any information from students' educational records without the written consent of students except to personnel within the institution, to persons or organizations providing students financial aid to accrediting agencies carrying out their accreditation function, to persons in compliance with a judicial order, and, in an emergency to persons in order to protect the health or safety of students or others. All these exceptions are permitted under the act.

Within The Citadel community, only those members, individually or collectively, acting in the students' educational interest are allowed access to student educational records. These members include personnel in the offices of the president, vice president for academic affairs, registrar, director of admissions, director of financial aid and scholarships, comptroller, and commandant, and academic personnel within the limitation of their need to know.

At its discretion, the institution may provide directory information in accordance with the provisions of the act to include student name, address, telephone number, date and place of birth, major field of study, dates of acceptance, degrees and awards received, the most recent previous educational agency or institution attended by the student, participation in officially recognized activities and sports, and weight and height of members of athletic teams. Students may withhold directory information by notifying the registrar in writing within two weeks after the first day of class for each fall term.

Request for non-disclosure will be honored by the institution for *only one* academic year; therefore, authorization to withhold directory information must be filed annually in the office of the registrar.

The law provides students with the right to inspect and review information contained in their educational records, to challenge the contents of their educational records, to have a hearing if the outcome of the challenge is unsatisfactory, and to submit explanatory statements for inclusion in their files if they feel the decisions of the hearing panels to be unacceptable. The registrar at The Citadel has been designated by the institution to coordinate and review procedures for the inspection of student educational records, which include admissions, personal, academic, cooperative education, and placement records. Students wishing to review their educational records must make written requests to the registrar listing the item or items of interest. Only records covered by the act will be made available within 45 days of the request. Students may have copies made of their records with certain exceptions (e.g., a copy of the academic record for which a financial "hold" exists, or a transcript of an original or source document which exists elsewhere). These copies would be made at the students' expense at prevailing rates. Educational records do not include records of instruction, administrative, and educational personnel which are the sole possession of the maker and are not accessible or revealed to any individual except a temporary substitute, records of the law enforcement unit, student health records, employment records, or alumni records. Health records, however, may be reviewed by physicians of the students' choosing.

Students *may not* inspect and review the following as outlined by the act: financial information submitted by their parents; confidential letters and recommendations associated with admissions, employment or job placement, or honors to which they have waived their rights of inspection and review; or educational records containing information about more than one student, in which case the institution will permit access *only* to the part of the record which pertains to the inquiring student. The institution is *not* required to permit students to inspect and review confidential letters and recommendations placed in their files prior to January 1, 1976, provided those letters were collected under established policies of confidentiality and were used only for the purposes for which they were collected.

Students who believe that their educational records contain information that is inaccurate or misleading, or is otherwise in violation of their privacy or other rights, may discuss their problems informally with the registrar. If the decisions are in agreement with the students' requests, the appropriate records will be amended. If not, the students will be notified within a reasonable period of time that the records will not be amended; and they will be informed by the registrar of their rights to a formal hearing must be made in writing to the vice president for academic affairs who, within a reasonable period of time after receiving such requests, will inform students of the date, place, and the time of the hearing. Students may present evidence relevant to the issues raised and may be assisted or represented at the hearings by one or more persons of their choice at the students' expense. The hearing panels which will adjudicate such challenges will be the vice president for academic affairs and such other officials of the college as he may designate.

Decisions of the hearing panels will be final and will be based solely on the evidence presented at the hearing. Written statements summarizing the evidence and stating the reasons for the decisions will be delivered to all parties concerned. The educational records will be corrected or amended in accordance with the decisions of the hearing panels, if the decisions are in favor of the students. If the decisions are unsatisfactory to the students, the students may place with the educational records statements commenting on the information in the records, or statements setting forth any reasons for disagreeing with the decisions of the hearing panels. The statements will be placed in the educational records, maintained as part of the students' records, and released whenever the records in question are disclosed.

Students who believe that the adjudications of their challenges were unfair or not in keeping with the provisions of the act, may request in writing assistance from the president of The Citadel concerning the alleged failures of The Citadel to comply with the act. Revisions and clarifications will be punished as experience with the law and the institution's policy warrants.

Military Policies

General

The Citadel is justly proud of its military training program which contributes significantly to the State of South Carolina and the nation in the form of military and civilian leadership. The Citadel is one of four Essentially Military Colleges remaining in the country. Today, Citadel graduates are adding to the rich heritage of their alma mater as officers in the armed forces and as leaders in the state and nation.

The military training at The Citadel is conducted by active duty officers and noncommissioned officers of the U.S. Army, U.S. Navy, U.S. Air Force, and U.S. Marine Corps. These active duty military personnel are organized into the Department of Military Science (Army Reserve Officers' Training Corps), the Department of Naval Science (Naval Reserve Officers' Training Corps), and the Department of Aerospace Studies (Air Force Reserve Officers' Training Corps). Military training is conducted for all cadets attending The Citadel, since it is a college requirement that all graduates must complete either the Army, Navy, or Air Force program. Additional information concerning the military programs offered at The Citadel may be found in the departmental section of this catalogue.

Commandant of Cadets

The Commandant of Cadets supervises the Corps of Cadets and its daily routine of duties. He grants leaves and other privileges provided for by regulations and is charged with the maintenance of discipline over all cadets attending The Citadel. The commandant exercises supervision over barracks, controls the officer-in-charge and the cadet guard, and keeps the president of the college informed on matters pertaining to the administration, conduct, and discipline of the Corps of Cadets.

Discipline

Because The Citadel is a military college, high standards of conduct and discipline must be maintained. Through a system of merits and demerits, a record is kept of the conduct of each cadet. This record influences his military standing. Privileges are curtailed for those cadets who fail to respond to ordinary corrective measures. Any cadet exceeding the allowed limit of demerits or other punishments may be dismissed.

By instruction and example, cadets are taught to be neat in person and in uniform. Daily inspections of rooms ensure cleanliness and good order. Through individual personal contact and group meetings, cadets are encouraged to uphold the traditions of The Citadel and the standards of honor, integrity, and courtesy which are an outstanding mark of the cadet and gentleman.

Management

Leadership, initiative, and character are developed by placing upon cadets the stimulating responsibilities of command within the organization.

All cadets live in barracks. From reveille to taps, every hour of the cadet's time is accountable. The regular habits of study and living thus formed, the attention to duty, obedience to authority, and appreciation of order inculcated are considered among the most valuable features of the military education. While some of the graduates enter the military profession, hundreds in all walks of civil life attest to the high value of the training received at the institution.

The daily routine is regulated by the *Cadet Regulations,* generally known as "The Blue Book."

Allowances of Demerits

When any cadet accumulates more than 20 demerits per month in his senior year, 22 per month in his junior year, 24 per month in his sophomore year, or 30 per month in his freshman year, he will be declared unsatisfactory in conduct. Cadets repeating any part of the fourth class year are allowed only 24 demerits per month.

Customs and Courtesies

A booklet published at The Citadel is designed to provide cadets with a compact manual of proper etiquette and the customs and courtesies of the service. All cadets receive instruction in these subjects and are furnished a copy of this booklet for their personal use.

After explaining clearly the value of a knowledge of the correct way of conducting oneself in social contacts, the booklet presents detailed information on such matters as personal appearance and dress, table manners, introductions, calling cards, calling, social correspondence, overnight visits, and punctuality.

Automobiles

Cadets of the first, second, and third classes are authorized to have automobiles at The Citadel. These vehicles must be registered with The Citadel Provost Marshal. Registered vehicles require current state registration, liability insurance, and state inspection where applicable.

Cadets of the fourth class are not authorized to have automobiles at The Citadel nor are they permitted to drive a vehicle or maintain custody of a vehicle within a 25 mile radius of The Citadel.

A parking fee per normal school year (Sept.-May) is charged per vehicle. Each registered vehicle will be assigned an individually reserved space. Each cadet vehicle must display a set of cadet decals indicating the assigned parking space number on *both* the front and rear bumpers (or at normal bumper location if vehicle is not so equipped). All vehicles occasionally or regularly driven on campus by cadets, students, faculty or staff must be registered and are operated and parked on campus at each owner's risk. Unregistered or illegally parked vehicles are subject to ticketing or towing at each owner's expense and risk.

Motorcycles

Two- or three-wheeled motorized vehicles are not authorized to be operated on campus.

Leaves

By applying for permission for their sons' entry to The Citadel, parents voluntarily relinquish control over them to the authorities of the college, and it is expected that they will not ask for leaves for their sons except in emergencies. In every case the reason for the leave must be stated and the decision left to The Citadel authorities whether the circumstances warrant the approval of the application. This must be done before leaves will be approved.

The paragraph which follows is extracted from *Cadet Regulations:*

"803c(4). EMERGENCY LEAVES.

Emergency leave may be granted only upon request of the parent or guardian in the event of death or critical illness of a member of the cadet's immediate family."

Duration of this leave will be predicated upon distance and time required but should normally not exceed five days. The immediate family includes parents, grandparents, brothers, sisters, and the permanent resident members of the family.

Critical illness is defined as an illness of such proportions that death may be imminent.

Special leave normally may be granted upon request of the family or guardian only in the event of the marriage of a member of the cadet's immediate family or golden wedding anniversary in the cadet's family.

Cadets may be granted special leave for such unusual business affairs as cannot be arranged by correspondence but require the presence of the cadet in person. In these cases applications from parents or guardians stating the circumstances are required. In all cases, the final decision must rest with the authorities of the college.

The Citadel has a weekend and overnight leave policy based on increasing class privileges for cadets who maintain academic and conduct proficiency.

Furloughs are granted at Thanksgiving, at Christmas, in the spring, and upon completion of the second semester.

The following paragraphs pertaining to medical leaves are extracted from *Cadet Regulations:*

"601. MEDICAL CARE. Cadets who are receiving medical care under the auspices of a private doctor will in all cases report the nature of the treatment, to include the illness and prescribed medication, to the surgeon."

Except in an emergency occurring on leave requiring immediate attention, a cadet will not arrange for or receive professional treatment from doctors or specialists without permission from The Citadel Surgeon. Applications for any special leaves required for such treatment will be submitted to the surgeon and, if approved, will be forwarded by the surgeon to the commandant.

"605. SPECIAL MEDICAL AND DENTAL SERVICE:

a. Dental work, special examinations of the eyes, etc., should be looked after during the summer, Christmas, or spring furlough periods.

b. In case the service of local dentist, oculist, or other specialist is deemed necessary, the request therefor will be submitted to the surgeon who, if he approves the request, will make all necessary appointments for the cadets. *No appointment with physicians other than the surgeon will be made by any cadet with a doctor in Charleston."*

The Fourth Class System

The purpose of the Fourth Class System at The Citadel is to lay the foundation, early in a cadet's career, for the development of those qualities of character and discipline implied in the mission of The Citadel as a military college—to produce young men with alert minds and sound bodies who have been taught high ideals, honor, integrity, loyalty, and patriotism; who accept the responsibilities which accompany leadership; and who have sufficient professional knowledge to take their places in a competitive world.

These personal qualities must be deeply ingrained in the individual so that neither time nor troubles will diminish his respect for complying with the customs and traditions set forth for the fourthclassman's conduct. The tradition of The Citadel cannot be maintained by men who will do no more than is required of them. Self-discipline and self-evaluation develop men whose integrity and sense of duty cause them to serve selflessly beyond the prescribed limits of their tasks.

The Fourth Class System is both difficult and demanding. It represents an abrupt change from the life normally experienced in the home and encompasses the entire period of a cadet's first year at The Citadel. It is administered impersonally but at the same time exhibits the individual understanding necessary for effective leadership. It requires a full measure of mental preparedness and physical endurance.

Because of the nature of the new cadet's training during his first weeks at The Citadel, physical demands upon him are necessarily great. Experience indicates that the cadet who, prior to admission, has conditioned himself physically is best able to meet the training requirements.

At the time of your medical examination, consult with your physician regarding your body weight. Particular attention should be given to estimated percent body fat, which provides a much more accurate figure for determining proper body weight than height/weight charts. If body weight loss appears to be indicated, follow your physician's advice relative to reducing caloric intake and increasing caloric expenditure.

The Charleston climate is generally conducive to year-round outdoor physical activity; however, the hot, humid conditions of August and September present several problems worthy of consideration. It is therefore important that you prepare yourself by controlled exposure to similar conditions during exercise. Although complete acclimation may not be possible prior to your arrival at The Citadel, some adaptation will certainly occur. During periods of exercise, dress comfortably and avoid plastic/rubber or heavy cloth sweatsuits.

In preparation, it is advisable to begin with a light to moderate work load of jogging and walking for a 15- to 20-minute period, progressing to longer periods of jogging preceded and followed by calisthenics such as push-ups, bent-leg sit-ups, "jumping jacks," and ½ knee-bends. *Avoid such exercises as full-knee bends, straight-leg sit-ups, and straight-leg lifts.*

Continued progress should be made until 3 to 5 miles can be covered in approximately 25 to 40 minutes, respectively. Before, during, and following exercise, it is important to replace body fluids. This prevents dehydration, aids in heat loss, and prevents muscle cramps and other discomforts.

In addition, each applicant for entry into The Citadel should be assured through a physical examination that he has no history of physical ailments which could possibly cause his discharge due to inability to participate in the Fourth Class System.

The Fourth Class System by nature appears arbitrary on the surface. It demands prompt and unquestioning obedience of authority through the use of a collection of customs and traditions. However, each of the elements or customs has a special purpose in furthering a cadet's development.

The system includes standing at a rigid position of attention, turning square corners when walking, undergoing neatness inspections before formations, learning various items of fourth-class knowledge, working on approved company details such as minor chores incident to keeping one's own area of the barracks in order, and submitting to a variety of minor restrictions concerning the use of certain campus grounds and facilities, the wearing of the uniform, and the general conduct of a fourthclassman.

Cadets who are unable to meet the desired standards or violate one or more of the customs are subject to corrective action. This can range from a verbal reprimand to walking tours on the quadrangle of barracks and may include restriction to the limits of campus. In extreme cases, a cadet who is unable to conform to the military way of life may be brought before a suitability board to determine his fitness to continue at The Citadel.

The measures described above are designed to test a cadet's mettle and to determine his motivation for cadet life. Their value lies in developing a cadet's ability to perform his duty successfully under trying and stress-producing conditions.

Hazing is not a part of the Fourth Class System and is not tolerated.

The suffering of degradation, humiliation, and indignity does not foster the rapid development of those qualities sought in fourthclassmen.

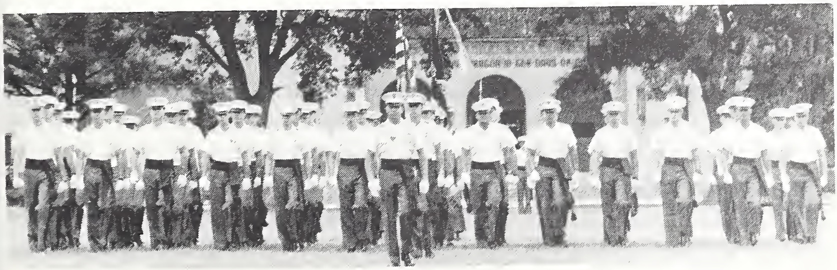
The Fourth Class System is a formidable challenge to any young man. The decision to enter The Citadel must be preceded by a conviction on the part of the prospective cadet and his parents that he has the mental and physical characteristics appropriate to the system and he possesses a willingness to undergo the system's rigors with a determination to see it through and to reap its benefits.

Although the system is demanding and difficult, the rewards are considerable. They more than justify the effort. At recognition by the Corps in May, a better man emerges—one who is mentally, morally, physically, and spiritually prepared to accept the reins of leadership which will ultimately be his at The Citadel and in the world.

Those students transferring from the national service academies (specifically the Military Academy, the Naval Academy, the Air Force Academy, the Coast Guard Academy, and the Merchant Marine Academy), Virginia Military Institute, or any other institution at which such students have:

a. successfully completed their participation in a fourth class or plebe system;
b. been full-time students in good standing in an ROTC program for the period of their enrollment at such an institution;
c. been enrolled at any of the foregoing institutions for a minimum of two semesters

shall have the option of transferring out of the Fourth Class System after one semester at The Citadel, provided at that time they are at least academic sophomores. Eligible students exercising this option to transfer out of the Fourth Class System shall hold no rank, nor have any authority over the other fourthclassmen for the balance of the academic year. All other transfer students will be expected to undergo a full year of the Fourth Class System at The Citadel.



ROTC Programs

ARMY ROTC PROGRAM

The purpose of the Army ROTC program at The Citadel is to attract, motivate, and train cadets with the potential to serve as commissioned officers in the Regular Army, Army Reserve, or the National Guard.

Regardless of a cadet's academic major, there is an Army specialty that can provide a training ground for its utilizations. Besides the combat arms specialties of infantry, armor, field artillery, aviation, air defense artillery, and engineer, the active Army and the Army Reserves have a need for officers in communications electronics, communications electronics engineering, law enforcement, tactical/strategic intelligence, counterintelligence, electronic warfare, cryptology, administrative and personnel management, community activities management, finance, aviation material management, communications electronics material, missile material management, chemical munitions material management, petroleum management, subsistence management, marine and terminal operations, highway and rail operations, maintenance management, and material/service management. Advanced alternate specialties are also available in the fields of training development, personnel programs management, comptroller, public affairs, foreign area officer, operations research/systems analysis, research and development, atomic energy, automated data systems management, operations and force development, transportation management, and procurement.

Finally, the Army needs officers in the Judge Advocate General Corps, Medical Service Corps, Medical Corps, and the chaplaincy.

U.S. Army ROTC Graduates

Graduates of The Citadel's Army ROTC program have the opportunity to serve their country in a variety of ways. Those cadets who have excelled academically and militarily both in the classroom and at ROTC advanced camp and who have clearly demonstrated high moral character, outstanding leadership ability, and excellence in the military arts will be selected as Distinguished Military Students and can be afforded the opportunity to apply for direct appointment in the Regular Army. Those cadets who accept this honor will serve a minimum of three years on active duty, in the same status as a graduate of the U.S. Military Academy, in one of the Army's many specialties for which he is best qualified.

Graduates also have the opportunity to serve as Reserve officers either on active duty or as a member of the United States Army Reserve or National Guard. Those who desire to be in the National Guard or a Reserve unit will serve 90 days active duty for training at an officer basic course within one year after graduation and then serve as a "citizen soldier" in a unit near their home, graduate school, or work.

Scholarships

The Army sponsors two-, three-, and four-year scholarships for outstanding cadets who desire careers as officers in the United States Army. Each scholarship provides for tuition, registration, college infirmary, fees, laboratory fees, and an allowance for textbooks. In addition, the scholarship recipient receives a monetary subsistence allowance of $100 a month for the academic year that the scholarship is in effect. In addition, Citadel academic scholarships may be available to help defray college expenses.

Pay and Allowances

Will you need money to fund your social life or offset expenses? Certain reimbursements are funded by the Department of the Army for ROTC cadets in the Army program. Cadets enrolled in the basic course (initial two years) will have a uniform allowance stipend credited to their student accounts each year. Those cadets formally enrolled in the advanced course (final two years) will also have a uniform allowance credited to their accounts each year. In addition, those cadets who sign an Army contract during the advanced course will receive a $100 allowance paid to them each month by check. During a six-week advanced camp, between their junior and senior years, all contract cadets attending the camp receive one-half the base pay for a second lieutenant plus 18.5 cents per mile travel to and from camp and their home of residence. Outstanding cadets may be selected to attend Ranger school, airborne school, air assault school, Northern Warfare Training Center, or cadet troop leading training with U.S. Army troop units at the pay scale mentioned above.

Enrollment

The basic requirements for formal enrollment in Army ROTC are listed below. These requirements must be fully met before the professor of military science can consider a cadet for enrollment in the Army program (Cadets not meeting these standards are not eligible for commissions or ROTC monetary allowances):

be a citizen of the United States;

be of good moral character (Cadets convicted by civil or military court for offenses other than minor traffic violations are not eligible for enrollment without specific approval of the Department of the Army. A cadet may apply for a waiver of conviction, provided the offense was nonrecurring and did not involve moral turpitude.);

maintain satisfactory academic standards with his class (A 2.0 cumulative GPR is required for advanced camp attendance and commissioning);

maintain a satisfactory leadership rating (This rating is determined by the commandant of cadets, the professor of military science, and other appropriate Citadel officials.);

be physicially qualified under Department of the Army standards.

Qualification for the basic course (initial two years) is usually met by a statement from The Citadel that the cadet can perform normal military duties.

Formal enrollment in the advanced course (final two years) and application for an Army contract require an Army administered physical examination, normally given during the spring of the third-class (sophomore) year. Waivers of physical defects are granted only in exceptional cases, and then only by authority of the Department of the Army. In addition, the applicant must pass an Army administered physical fitness test.

NAVY/MARINE ROTC PROGRAM

Because of its location in a coastal city with a major Naval complex and nearby Marine Corps facilities to render support, The Citadel's Naval Reserve Officer's Training Corps Unit is perhaps unique in its ability to educate and train Navy and Marine Corps officers.

Two programs leading to commissioned grade in the Naval Services are offered: The Navy/Marine Corps Scholarship Program for selected Naval Scholarship cadets assigned to The Citadel who have their tuition and the majority of their college expenses paid by the Navy Department;

nd the Naval ROTC College Program for cadets who receive limited nancial assistance during their junior and senior years.

Navy/Marine Scholarship Program

Navy/ Marine Scholarship students are selected through national com-etition and attend one of the 61 colleges or universities with Naval OTC units. Each year a number of the Naval ROTC College Program adets at The Citadel may receive direct scholarship appointments from e Chief of Naval Education and Training. The Naval Scholarship cadets ttending The Citadel may enroll in any academic major approved by the rofessor of naval science. Emphasis will be placed upon engineering and ard science majors for those whose goal is a Navy commission. These udents attend three summer training periods with pay. In return, the avy Department provides tuition, certain fees, all textbooks, a uniform llowance, and $100 a month subsistence allowance. Upon graduation, aval Scholarship cadets receive Regular commissions as ensigns in the S. Navy or second lieutenants in the U.S. Marine Corps and serve on ctive duty for a minimum of four years.

Naval ROTC College Program

The Naval ROTC College Program is offered for cadets who wish to rn commission as officers in the U.S. Navy or U.S. Marine Corps. hese Naval cadets may enroll in any academic major at The Citadel. ollege Program students must attend a minimum of one summer aining cruise with pay. The Navy furnishes all naval science textbooks, rovides an annual uniform allowance, and pays a monthly subsistence of least $100 a month during the junior and senior years. Upon raduation, these Naval cadets receive Reserve commissions in the U.S. avy or the U.S. Marine Corps and serve on active duty a minimum of ree years. While serving on their initial duty, they may apply for a egular commission and gain the opportunity of a full career of active uty service.

College Program cadets may compete in national competition for either avy or Marine scholarships; additionally, they are eligible to compete r direct appointment to scholarship status through the Chief of Naval ducation and Training.

Enrollment

To be eligible for enrollment in the Naval ROTC program one must:

—be a citizen of the United States;

—have reached the 17th anniversary of his birth by September 1 of the year enrolled;

—not have reached the 21st anniversary of this birth by June 30 of the year enrolled; and

—be physically qualified (defective vision must be correctable to 20/20 and waivers for color blindness may be considered).

Those cadets not qualified for or not desirous of formal enrollment in either the Scholarship or College Program may participate in naval science courses for academic credit only. They will not be eligible for appointment to commissioned grade.

Selection of Navy/Marine Option

Naval cadets may, upon matriculation, exercise an option and indicate a desire for a commission in either the U.S. Navy or U.S. Marine Corps. This option must be exercised prior to the beginning of the junior year as the Navy and Marine curricula become independent during the last two years. All candidates for the Marine-option must have the recommendation of the Marine officer instructor and the approval of the professor of naval science.

NROTC Summer Training

Navy/Marine Scholarship cadets are required to perform training of approximately six weeks of the three summers between their freshman and senior years. The first summer's training is performed aboard operational ships of the fleet. During the second summer, Naval cadets receive orientation in four major naval warfare areas at major naval installations. These warfare areas include surface warfare, submarine warfare, naval aviation, and Marine Corps amphibious warfare. During the third summer, candidates for U.S. Navy commissions perform their training aboard fleet operational ships, serving as junior officers; candidates for U.S. Marine Corps commissions perform their training at the U.S. Marine Corps Development and Education Command, Quantico, Virginia. Transportation costs to and from the sites of training, subsistence and quarters-in-kind, and one-half of an ensign's or second lieutenant's pay will be paid to all participating Naval cadets.

Naval ROTC College Program cadets are required to perform one summer of training duty between the junior and senior years. The period of training is about six weeks. Candidates for commissions in the U.S. Navy normally will perform their training aboard operational ships of the fleet. Candidates for commissions in the U.S. Marine Corps will perform their training at the U.S. Marine Corps Development and Education Command, Quantico, Virginia. Transportation costs to and from the sites of training and one-half of an ensign's or second lieutenant's pay will be paid to all participating Naval cadets.

Summary of Estimated Naval ROTC Allowances

Navy/Marine Scholarship Program:

Each scholarship pays the tuition, registration, college, hospital, and laboratory fees outlined in this catalogue. The total amount of fees paid by the government and the amount which must be paid by the student are shown at the end of the descriptions of ROTC programs. In addition to these fees, the following payments are also made:

Uniform allowance—approximately $1,400 over four years
Subsistence allowance—$100 per month (up to 40 months) tax free
Summer training pay—one-half of an ensign's or second lieutenant's pay for period of training
Books—all books provided or paid for

College Program:

Uniform allowance—approximately $1,400 over four years
Subsistence allowance—$100 per month (up to 20 months) tax free

AIR FORCE ROTC PROGRAM

The mission of The Citadel's Air Force ROTC Detachment is to provide instruction, training, experience, and motivation to each cadet choosing the Air Force ROTC program and to insure that he possesses the knowledge, character, and qualities of leadership essential to an officer.

Emphasis is placed on the preparation of the dedicated professional officer who accepts responsibility readily, thinks critically and creatively, and writes and speaks effectively. The Air Force ROTC program at The Citadel is a major source for this kind of Air Force officer.

Citadel graduates have served both the Air Force and the nation well in war and peace. Today's Citadel cadets can be expected to assume important command and managerial positions in the aerospace forces of the future.

Four-Year Program

The four-year Air Force ROTC program at The Citadel serves as a major commissioning route for young men interested in becoming officers in the U.S. Air Force.

Each student enrolls at the beginning of his freshman year, and during the first two years he pursues the General Military Course. This presents the organization, mission, and functions of the U.S. defense establishment and examines the development of air power over the past 80 years.

During the sophomore year cadets who are physically qualified and have maintained good academic standing may apply for entry into the advanced portion of the program. Each cadet desiring a commission will attend a four-week field training course.

Selected and qualified cadets enroll in the Professional Officer Course, the last two years of the Air Force curriculum. Included in the third-year curriculum are studies in communicative skills, leadership in theory and practice, the principles and functions of management, and problem solving. The final year includes the military justice system, the role of the professional officer in a democratic society, the requisites for maintaining adequate national security forces, the constraints upon the national defense structure, the effect of technological and international developments on strategic preparedness, and an analysis of the defense policy-making process.

Formal Enrollment Requirements

General Military Course

1. Be a citizen of the United States.
2. Maintain satisfactory academic standards.
3. Have good moral character.
4. Sign a certificate of loyalty to the United States Government.
5. Successfully complete a course in English composition (applies to AFROTC scholarship holders).
6. Successfully complete a course in English composition and one year of a major Indo-European or Asian language (this requirement applies only to AFROTC scholarship cadets).

Professional Officer Course

1. Complete the General Military Course.
2. Be physically qualified. The most frequently occurring disqualifying item is failure to meet vision standards. Some minimum acceptance vision standards are: pilot, 20/20 uncorrected in both eyes; navigator, 20/70 correctable to 20/20 in both eyes; non-rated, 20/400 correctable to 20/30 in one eye and 20/40 in the other.
3. Agree to serve on active duty for seven years after completion of Undergraduate Flying Training for pilot or six years for navigator.
4. Enlist in the USAF (Obligated Reserve Section) for a specified period of time. A cadet selected for the Professional Officer Course who willfully evades the terms of his advanced course contract or who completes the course but declines to accept a commission when offered may be ordered to active duty to serve in his enlisted grade for a period not to exceed two or four years depending on whether or not the cadet is enrolled under the AFROTC scholarship program. Under the latter program, enlisted service may extend to four years.
5. Maintain satisfactory academic standards and graduate with his class.
6. Successfully complete (or have completed) a course in mathematical reasoning.

Field Training

Citadel cadets pursuing a commission through AFROTC are required to attend a four-week training course at an Air Force base, normally during the summer between the sophomore and junior years. To most cadets this is a memorable experience, because they get a close-up look at Air Force life and operations. Each cadet receives practical guidance in junior officer training, aircraft and aircrew orientation, small-arms familiarization, physical training, survival training, and career orientation, as well as training in many other areas needed by the Air Force professional.

Field Trips

The vast scope of the United States Air Force is difficult to portray in the classroom. In partial compensation, the Air Force ROTC detachment at The Citadel takes selected cadets to the Air Force—in the form of field trips to Air Force bases. On these trips the cadets receive briefings on base activities, observe Air Force operations firsthand, and, as a highlight, take an orientation ride in a large jet transport. They return to school with a more accurate perspective of the global nature of the organization in which they will serve. Experience has shown that these visits are of considerable value in developing a cadet's appreciation of the Air Force officer's challenging career.

Fees Covered by ROTC Scholarships

For South Carolina Students

	Total	Amount Paid By Government	Amount Paid By Student
Freshmen			
First Semester	$4,575.50	$ 970.00	$3,605.50
Second Semester	1,975.50	945.00	1,030.50
Total	$6,551.00	$1,915.00	$4,636.00
Sophomores			
First Semester	$2,428.00	$ 970.00	$1,458.00
Second Semester	2,403.00	945.00	1,458.00
Total	$4,831.00	$1,915.00	$2,916.00
Juniors			
First Semester	$2,362.00	$ 970.00	$1,392.00
Second Semester	2,337.00	945.00	1,392.00
Total	$4,699.00	$1,915.00	$2,784.00
Seniors			
First Semester	$2,325.50	$ 970.00	$1,355.50
Second Semester	2,300.50	945.00	1,355.50
Total	$4,626.00	$1,915.00	$2,711.00

For Out-of-State Students

	Total	Amount Paid By Government	Amount Paid By Student
Freshmen			
First Semester	$5,725.50	$2,120.00	$3,605.50
Second Semester	3,125.50	2,095.00	1,030.50
Total	$8,851.00	$4,215.00	$4,636.00
Sophomores			
First Semester	$3,578.00	$2,120.00	$1,458.00
Second Semester	3,553.00	2,095.00	1,458.00
Total	$7,131.00	$4,215.00	$2,916.00

Juniors			
First Semester	$3,512.00	$2,120.00	$1,392.00
Second Semester	3,487.00	2,095.00	1,392.00
Total	$6,999.00	$4,215.00	$2,784.00
Seniors			
First Semester	$3,475.50	$2,120.00	$1,355.50
Second Semester	3,450.50	2,095.00	1,355.50
Total	$6,926.00	$4,215.00	$2,711.00

Pay and Allowances

Students formally enrolled in the General Military Course (initial two years) and the Professional Officer Course (final two years) are paid an annual uniform allowance. A cadet must be enrolled at least 45 days to receive this allowance. Uniform allowances are not paid directly to cadets but are credited to their student accounts.

A cadet selected for the Professional Officer Course will be provided subsistence pay at the rate of $100 per month beginning on the day he starts advanced training and ending upon the completion of his instruction. In no event shall any cadet receive such pay for more than 20 months.

AFROTC College Scholarship Program

To attract top-quality students, Air Force ROTC is authorized to grant up to 6,200 scholarships which provide full tuition, registration fees, college fees, hospital fees, laboratory fees, and $114 per semester for books. Uniform allowances are also accredited to cadets accounts at The Citadel. Scholarship recipients are paid a tax-free subsistence of $100 per month. The total amount of fees paid by the government and the amount which must be paid by the cadet are shown below. Cadets attending The Citadel or desiring to attend are eligible to compete for these four-, three-, and two-year AFROTC scholarships. Selections are made on the basis of the cadet's academic grades, officer aptitude as reflected on the Air Force Officer Qualifying Test, SAT scores, medical examination, demonstrated performances, and an interview by a panel of officers. In addition, Citadel scholarships are available to help further defray college expenses.

AFROTC Scholarship recipients must successfully complete at least one year of instruction in a major Indo-European or Asian language. Demonstration of foreign language proficiency can be used to satisfy this requirement.

Expenses

The Citadel, The Military College of South Carolina, is supported by the State of South Carolina. The costs of operation are underwritten through collection of fees from the students and appropriations made by the General Assembly of South Carolina. Nonresidents are required to pay a larger portion of the costs of their education than is required of residents of South Carolina.

The Treasurer, The Citadel, is responsible for the collection of monies due The Citadel. All correspondence concerning fees, payments, and status of accounts should be directed to that office.

Fees

The fees shown below are required to be paid by all students. Please note that the required fees at The Citadel include *all normal expenses* to be incurred by a student including dry cleaning, laundry, room, board, and infirmary care. The college reserves the right to adjust fees to meet the current cost of operation should it become necessary.

Expenses for South Carolina Students*

	Freshmen	*Sophomores*	*Juniors*	*Seniors*
Registration Fee	$ 25.00	$ 25.00	$ 25.00	$ 25.00
Tuition Fee	125.00	125.00	125.00	125.00
College Fee	1,455.00	1,455.00	1,455.00	1,455.00
Athletic Fee	140.00	140.00	140.00	140.00
Auxiliary Services	2,231.00	2,231.00	2,231.00	2,231.00
Total Fees:	$3,976.00	$3,976.00	$3,976.00	$3,976.00

Expenses for Out-of-State Students

	Freshmen	*Sophomores*	*Juniors*	*Seniors*
Registration Fee	$ 25.00	$ 25.00	$ 25.00	$ 25.00
Tuition Fee	385.00	385.00	385.00	385.00

College Fee	3,330.00	3,330.00	3,330.00	3,330.00
Athletic Fee	305.00	305.00	305.00	305.00
Auxiliary Services	2,231.00	2,231.00	2,231.00	2,231.00
Total Fees:	$6,276.00	$6,276.00	$6,276.00	$6,276.00

*South Carolina residents are those persons who meet the residency requirements specified in the South Carolina Code of Laws, Act #466-1978 and amendments thereto. All other persons must pay out-of-state fees.

All fees and deposits are due and payable by semester, prior to the date of reporting to school for registration. Payments of fees are due as shown on the table presented later in this section. Failure to pay the invoice or any part thereof subjects the student to being dropped from enrollment at The Citadel. Bills for the regular academic year will be sent to parents or guardians approximately one month prior to the due date. All remittances should be by money order or check, made payable to The Citadel and mailed to the Treasurer, The Citadel, Charleston, South Carolina 29409.

Parents or legal guardians are held responsible for payment of all fees and overdrafts unless the treasurer is notified prior to due dates that the student or some other party has assumed this responsibility.

Since summer and evening school fees are based upon the credit hours taken, it is not feasible to pre-bill these fees. Summer and evening programs are described under separate headings.

Information relative to financing educational fees on a monthly installment basis—such as the Tuition Plan of New Hampshire, Inc., the Knight Agency, Inc., or the Academic Management Service—may be secured by writing to the treasurer at The Citadel. Financial arrangements require time for processing, so it is essential that applications be made as soon as possible.

Unsatisfactory Accounts: A student whose account is in an unsatisfactory condition will not be issued grade reports, transcripts, or a diploma; will not be permitted to participate in commencement ceremonies; and will not be permitted to enroll in additional course work until satisfactory settlement of the account has been made.

Non-negotiable Checks: There will be a handling charge of $10 for a non-negotiable check. The college will pursue collection procedures as provided by the laws of the State of South Carolina. The Citadel will not accept personal checks from individuals who have issued two non-negotiable checks.

Pocket-Money: The Citadel does not handle pocket-money accounts.

All allowances for pocket-money should be determined by the parents and sent directly to the cadets. Cadets receiving substantial allowances for their personal needs should deposit this money in The Citadel Depository, which is maintained for the accommodation and convenience of the cadets. This depository is located in the treasurer's office in Bond Hall.

Explanation of Deposits

Deposits for Books, Supplies, Uniforms, and Accessories: In addition to the fees previously described, each student is required to deposit funds to his account to cover the cost of books, supplies, uniforms, accessories, alterations to uniforms, haircuts, personal items, laboratory fees, engineering drawing equipment and supplies, and other miscellaneous expenses relevant to his studies or attendance at The Citadel. The amount of the deposit has been estimated based upon the average needs. If a student should exceed the deposit, additional funds will have to be added to his account.

The required deposits are as follows:

Freshmen		
Uniforms	$2,043	
Books, Supplies, and Accessories	532	
		2,575
Sophomores		
Uniforms	$ 400	
Books, Supplies, and Accessories	455	
		855
Juniors		
Uniforms	$ 268	
Books, Supplies, and Accessories	455	
		723
Seniors		
Uniforms	$ 195	
Books, Supplies, and Accessories	455	
		650

Books, Supplies, and Accessories: This deposit has been kept to a minimum to cover only necessary educational requirements. Different academic majors require additional funds because of laboratory fees and differences in costs of books. Engineering majors are required to purchase drawing instruments, in addition to the above deposit.

The required deposits will not permit the purchase of additional nonessential or nonrelated educational items. Therefore, a student will not be permitted to charge such nonrequired purchases or charges as:

> class rings, swords, magazine subscriptions or paperbacks not academically required, military services — dining ins/mess nights, and club dues.

The above items may be purchased on a cash basis at the Canteen, Cadet Store, Athletic Department, or other designated departmental operations.

Uniforms: All cadets are required to wear The Citadel uniform which is issued by the college. New cadets are required to be outfitted in new outer uniforms and uniform accessories issued by the college. New cadets should not bring a supply of civilian clothes other than those which are worn upon reporting to the college, as they are not permitted to wear civilian clothes except during authorized furloughs.

The cost of uniforms, although a paid fee, should be viewed as a clothing expense which is incidental to attending any college. With proper care, the uniform should last for several years. Of course, the requirements during the subsequent years will depend on the manner in which the cadet has cared for his uniform. The overall cost of the uniform should not exceed that which would be incurred in purchasing clothes to attend a civilian college. (Additional sets of uniforms may be purchased as desired for cash in the Cadet Store.)

The woolen uniforms issued to cadets are custom-made for The Citadel. Once the uniforms have been fitted to a cadet, the entire cost will be charged to him. Since the uniforms are tailor-made to the measurements of each cadet after enrolling at The Citadel, every cadet withdrawing from college will be charged a cancellation fee for canceling the purchase of the uniforms.

In order to keep the appearance of the Corps of Cadets at the highest level, an inspection will be made of the articles of uniform of members of the sophomore, junior, and senior classes at the beginning of the school year. If the uniforms do not meet the minimum standards of appearance, the individual will be required to purchase a replacement for the unserviceable item of uniform.

Statement of Student's Account

A monthly statement is furnished each student. *It is incumbent upon* *the student to verify each charge or credit made to his account. After he has verified the charges and credits, he should forward the statement to his parents or guardian for their information. If the student's account is overdrawn, he should go to the treasurer's office to determine if he should make an additional deposit.*

The unexpended balance of the deposit will be returned upon request at the close of the academic year; otherwise, it will be held to the student's credit until the next academic year, or until he withdraws or graduates from The Citadel. The college treasurer should be notified if credit in the account is to be applied to a first semester bill. *A parent or guardian of a cadet must request the refund.*

Explanation of Fees 1986-87

Reservation Fee: A reservation fee of $100 is required of all cadets. This fee is not an additional charge but is an advance payment toward the fees due for the fall semester and will be shown as a credit on the first semester bill. It assures a cadet a place in the Corps of Cadets and barracks for the following August.

All new cadets are required to pay this fee within 15 days after notice of acceptance has been received from the admissions office.

A cadet currently enrolled who plans to continue his education at The Citadel is also required to pay the reservation fee not later than July 1 for the fall semester. If this fee is not paid by July 1, The Citadel is not obligated to permit him to continue his education at The Citadel.

The reservation fee will be refunded to students who notify the registrar in writing not later than July 1 to cancel their reservations at The Citadel. After July 1, this fee will be refunded only to those upperclassmen (sophomores, juniors, and seniors) who have been dropped from enrollment at The Citadel because of academic deficiencies or other causes.

Auxiliary Services Fee: A fee of $2,231.00 per academic year is assessed each student to cover room, board, laundry, dry cleaning, and normal infirmary care. For the purpose of loan applications for 1986-87, room and board should be shown as $1,725.00 and laundry, dry cleaning, and infirmary at $506.00.

Due to many uncontrollable factors, the college reserves the right to increase this auxiliary fee at any time to meet current increases in the cost of operation. This fee is refundable upon withdrawal from school as shown later in this section.

Breakage: A $50 fee will be maintained by all barracks students enrolled at The Citadel. When there is insufficient money in the cadet's account to cover the cost of damages to buildings, rooms, equipment, or loss of ROTC manuals and government property, this deposit will be used. It is refundable after graduation or withdrawal from The Citadel.

Graduation Service Charge: The charge for diploma and other graduation costs is $30.

Transcript Fee: Official transcripts of scholastic records will be furnished upon written request. There is no charge for the initial transcript, but a fee of $2 is charged on all subsequent ones. Remittances for transcripts should accompany the application for the transcript and should be mailed to the registrar (payable to The Citadel).

Laboratory Fee: A laboratory fee of $25 a semester is charged students taking courses involving laboratory work in biology, chemistry, civil engineering, electrical engineering, geology, modern languages, physics, and any computer course. Varying fees are assessed for certain physical education courses and Canteen sponsored bowling. These lab fees are used to cover the added expense of supplies and costly equipment used in the teaching of these courses. This fee is not collected but is included in the estimated deposit for books and supplies and is chargeable against the deposit.

Schedule for Payments for South Carolina Residents

Due Date	*Freshmen*	*Sophomores*	*Juniors*	*Seniors*
Reservation Fee due within 15 days of notice of acceptance	$ 100.00			
Reservation Fee on or before July 1		$ 100.00	$ 100.00	$ 100.00
First Semester Fees & Deposit*				
8/4/86 for freshmen	4,575.50			
8/11/86 for upperclassmen		2,428.00	2,362.00	2,325.50
Second Semester Fees & Deposit 12/15/86	1,975.50	2,403.00	2,337.00	2,300.50
**Total Academic Year	$6,551.00	$4,831.00	$4,699.00	$4,626.00

Schedule for Payments for Out-of-State Residents

Due Date	*Freshmen*	*Sophomores*	*Juniors*	*Seniors*
Reservation Fee due within 15 days of notice of acceptance	$ 100.00			
Reservation Fee on or before July 1		$ 100.00	$ 100.00	$ 100.00
First Semester Fees & Deposit*				
8/4/86 for freshmen	5,725.50			
8/11/86 for upperclassmen		3,578.00	3,512.00	3,475.50
Second Semester Fees & Deposit 12/15/86	3,125.50	3,553.00	3,487.00	3,450.50
**Total Academic Year	$8,851.00	$7,131.00	$6,999.00	$6,926.00

*NOTE: The $100 Room Reservation Fee will be credited against this amount.

**NOTE: Total payment includes deposits on uniforms, accessories, books and supplies.

Refunds

The Citadel is committed to many expenses based upon the anticipated enrollment at the beginning of each term. Registration at The Citadel is considered to be a contract binding the student and his parent or guardian to charges for the entire term.

However, students who withdraw during a term may receive partial refunds based on the length of attendance. Refunds will be computed from registration date until withdrawal date as determined by the registrar. No refunds will be made for less than $1.00.

Authorized refunds are as follows:

Tuition, College, and Auxiliary Services Fees (except Room Reservation Fee and Board Fees):

Length of enrollment	*Semester fees refunded*
less than one week	80%
one to two weeks	60%
two to three weeks	40%

three to four weeks	25%
after four weeks	none

Room Fee:

The $100 room reservation fee is forfeited. The remaining amount of the room fee is refunded as shown above.

Board Fees:

Board fees will be prorated and refunded on the basis of days enrolled.

Deposits for Books, Supplies, Uniforms, and Accessories:

The unused portion of the deposit to the student's account for books, supplies, uniforms, and accessories will be refunded.

Refunds will be mailed approximately 45 days after discharge.

May graduates will receive a check for the credit in their accounts approximately one week prior to graduation.

Additional Information

All cadets are required to furnish their own bedclothes except a bedspread and blanket which will be issued to each cadet. Beds and mattresses are provided by the college, but pillows are not. One plastic mattress cover will be issued at cost to each cadet. Cadets *must* come provided with the following articles:

Two pajamas
Twelve white tee shirts and twelve undershorts
*Twelve pairs of black socks
Six pairs of white athletic socks
One pair of bedroom slippers or shower shoes
One pair of good tennis shoes (non-marking)
One pair of good jogging shoes
Ten white towels
One pillow
Two pairs of plain toe, smooth leather, black oxford shoes (with rubber heels) or one pair of plain toe, smooth leather, black oxford shoes (with rubber heels) and one pair of black oxford corfam shoes (with rubber heels). Fourthclassmen will not be authorized to wear corfam shoes to formations and inspections but will be authorized to wear them to classes, other duty, and when going on leave.
One military-style blanket for single bed
Toilet articles
Four white sheets for single bed
Three white pillow cases
Twelve white handkerchiefs

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*Black *cotton* socks are suggested. Experience has proven that the wearing of socks made of synthetic materials has contributed to blistering and, in some cases, secondary infection.

Some of the above items are available at The Citadel Cadet Store. Summer hours are maintained from 8 a.m. to 4:30 p.m. Monday through Friday.

In addition to the required items listed above, cadets may bring or obtain later the following articles:

One reading desk lamp
One picture with frame no larger than 8″ x 10″
One radio, stereo, or tape recorder (no more than two speakers 12″ x 24″) per room
One clock
One oscillating fan

Since the college does not furnish bed items, it is advisable that each cadet who ships his belongings to The Citadel bring with him two sheets, one pillow case, and one pillow for his use until he is able to get access to his belongings.

New cadets are advised to break in their cadet uniform shoes at least three weeks prior to reporting to The Citadel.

Before the opening of the first semester, a new cadet is assigned an identification number, which he retains as long as he remains at The Citadel. This six-digit number will be used by the cadet as an identification number and as his laundry number.

It is suggested that new cadets *not* mark their clothing, bedding, etc., prior to their arrival at The Citadel.

Upon entering The Citadel, each new cadet is issued a marking kit bearing his name and initials and identification number for use in marking his clothing, uniforms, bedding, books, etc.

Luggage

It is advisable to bring inexpensive trunks and suitcases since it is not permissable to retain them in the cadet's room. Luggage may be stored in the Central Warehouse at the risk of the owner. One piece (overnight bag) necessary for weekend or athletic trips may be kept in the cadet's room.

The Citadel has only a limited amount of space to store cadet luggage. Therefore, it is necessary that, when a cadet withdraws or graduates, he remove his luggage immediately from the warehouse before departing. If it is necessary to ship luggage home, it will be C.O.D., and an appropriate charge will be made for packing and handling. If after notification has been given an ex-cadet or graduate that his luggage has been left in the warehouse and no reply is received within 30 days giving direction for shipment or disposal thereof, The Citadel will automatically dispose of the luggage.

Luggage sent by commercial transportation should be clearly identified, with name of the cadet, company letter and/or barracks number or name, and shipped to The Citadel, Warehouse Manager, Central Warehouse, Charleston, South Carolina 29409.

The warehouse manager should be notified in advance of the shipment. Upon receipt, the luggage will be placed in the cadet's barracks.

Employment

The time of a cadet at The Citadel is so taken up with his duties that there is little opportunity for employment for the purpose of financial assistance. However, there are a limited number of part-time jobs available from time to time with various campus activities. These jobs are not of a substantial nature which can be relied upon to pay a cadet's college fees.

Hospital Group Insurance

The Citadel has made arrangements with a private insurance company for a group hospitalization program available to all cadets and veteran students on a voluntary basis. The particulars of this program are provided the parents or guardians and veteran students prior to each school year. This program is approved by The Citadel but operated by the private insurance agency.

The cadet insurance policy is designed to provide supplemental insurance and may not provide adequate coverage for all illnesses or injuries. It is emphasized that it is up to the student, parent or guardian, as the case may be, to determine what they feel constitutes adequate coverage.

Infirmary

The Citadel is staffed with full time physicians and registered nurses who provide high quality health care. The infirmary has 38 in-patient beds and x-ray and laboratory capabilities. Routine infirmary care consisting of initial evaluation and treatment of medical problems is provided without added expenses to cadets. Special medical and minor surgical services are available for minimal costs which cover medical supplies. The costs of x-rays, prescription drugs, laboratory studies, and minor surgical procedures will be charged to the cadet's account. When accident insurance is available, the infirmary staff will assist the student in filing the claim to recover these costs.

Other regular day students may be treated at the infirmary on an out-patient basis for minor illness or minor injury at a minimum cost per visit. For medical care requiring hospitalization, these students will be referred to a local hospital.

All other students (evening, graduate) may receive first aid at the infirmary only in cases of emergency occurring on campus (serious illness, serious injury) and will be immediately transferred to a local hospital. A charge will be made for such service.

The use of The Citadel infirmary is available to both veteran and day students upon payment of the prescribed semester infirmary fee, or in accordance with the published schedule of individual visit rates.

Each applicant approved for admission must complete The Citadel Medical History and Physical Examination Form which requires a thorough physical examination with selected laboratory testing. The physical requirements for entrance into The Citadel are based on the U.S. Army Medical Standards. Final acceptance is contingent upon approval of the physical examination by The Citadel Surgeon.

Day and Veteran Students

Eligibility criteria for day student status are presented under separate heading in the Academic Policies section of this catalogue. Certified veterans (see the Requirements for Admissions section of this catalogue) are also, within the limits established by the policies of the institution, permitted to participate in the day program at The Citadel.

Schedule of Payments for South Carolina Students
Veteran and Day Students

Fees:	**Total**	**1st Semester Fees Due 8/11/86**	**2nd Semester Fees Due 12/15/86**
Registration Fee	$ 25.00	$ 25.00	
Tuition	125.00	62.50	62.50
College Fee	1,455.00	727.50	727.50
Athletic Fee	140.00	70.00	70.00
Book and Supply Deposit	300.00	150.00	150.00
Total	$2,045.00	$1,035.00	$1,010.00

Schedule of Payments for Out-of-State Students

Fees:	Total	1st Semester Fees Due 8/11/86	2nd Semester Fees Due 12/15/86
Registration Fee	$ 25.00	$ 25.00	
Tuition	385.00	192.50	192.50
College Fee	3,330.00	1,665.00	1,665.00
Athletic Fee	305.00	152.50	152.50
Book and Supply Deposit	300.00	150.00	150.00
Total	$4,345.00	$2,185.00	$2,160.00

Students financing their education through the Veterans Administration may arrange alternative schedules through the veterans affairs officer and the college treasurer.

Summer Session

A summer session is conducted for students who wish to accelerate their work or to address academic problems.

The summer session must be self-supporting, and the same fees must be charged to both South Carolina and out-of-state students. Fees for the two-term summer session are as follows:

	Each Term
Registration	$ 5.00
Fee—$70 per semester credit hour (undergraduate)	....
Fee—$70 per semester credit hour (graduate)	....
Room, Board, Laundry, Infirmary, and Student Activities (available only to cadets)	$380.00
Laboratory—for laboratory courses in biology, chemistry, physics, computer science, and languages	$25.00

A course change fee of $5 per course will be charged. In addition, a withdrawal fee of $10 per course will be charged. A $20 student activity fee will be assessed for students not living in barracks, but who desire to use recreational facilities.

Students who register but later decide not to attend classes will be charged the $5 registration fee and a withdrawal fee of $10 for each course. Students who have not cleared their accounts within the first 10 days of class will be disenrolled from all course work. There will be no refunds of tuition after the first 10 days of class.

During the summer session all purchases of books and supplies will be on a cash basis. There will be no charging to the student's account since no book or supply deposits will be collected.

Bills for the summer session will not be sent to the parents by the treasurer. It is impossible for the treasurer to compute these bills since the fee is based on the number of credit hours of work scheduled by the student. The student should come supplied with sufficient cash to take care of his fees for the summer session. Details of the summer school program may be had by obtaining a copy of the Summer School Bulletin from the evening college office.

Evening College Program

The Citadel Evening College has been established to make available to the Lowcountry community, and especially the adult in the Lowcountry, the opportunity to share in the quality undergraduate education provided to the South Carolina Corps of Cadets. Courses offered through the Evening College maintain the same standards as those in the cadet day program and generally are taught by faculty who also teach in the day program. The basic mission of the Evening College is to provide to those interested an avenue for self-improvement and professional development through college credit courses which may or may not be part of a degree program.

While courses in the Evening College cover a wide variety of areas and are open to interested persons from diverse backgrounds, there are four planned sequences:

1. a 64 credit hour pre-engineering program preparing students for transfer to advanced standing at other engineering schools;
2. a 64 credit hour pre-health science program preparing qualified students for admission into professional programs in the College of Allied Health at the Medical University of South Carolina;
3. a 122 credit hour program leading to the bachelor of science in business administration degree;
4. a 122 credit hour program leading to the bachelor of arts in liberal studies degree.

Course work may be taken through the Evening College for transfer toward degrees at other institutions. However, the only degrees which can be earned through the Evening College are the business administration and liberal studies baccalaureates. In each of these degree programs, a minimum of 36 of the required 122 credit hours must be taken at The

Citadel. In addition, to ensure that academic work in the major is current, at least 30 of the final 37 credit hours must be taken at The Citadel within a period of five years of the date of graduation. Credits gained through AP or CLEP may not be counted among these credit hours or among the 36 credit hours mentioned above. Acceptability of transfer credits is governed by the policy described under the section titled Academic Policies.

Admission: Because of its community service orientation, non-degree seeking persons may register for individual courses on an open enrollment basis. Admission to a formal program, however, requires evidence of high school graduation or its equivalent and is subject to appropriate standards. In the case of the bachelor of science in business administration, these standards are equivalent to those of the day program. Persons interested in the pre-engineering program are advised to submit CEEB aptitude scores as well.

Exceptions to this policy are:

1. students who are in cadet status, whether currently enrolled or not, are not eligible to enroll in Evening College courses (veteran and day students at The Citadel may do so with the consent of their advisors);
2. students who are still pursuing high school graduation can be admitted only upon the recommendation of their principals or guidance counselors;
3. students who are not eligible to return to their college for reasons other than moral turpitude may not enroll in Evening College courses until two semesters (exclusive of summer terms) have elapsed since the semester of dismissal;
4. students who are not eligible to return to their college for reasons of moral turpitude are not eligible for enrollment unless extenuating circumstances justify, and this may not occur prior to the two semester lapse cited above.

These conditions do not apply to summer school registration (either day or evening) which is permitted on an open enrollment basis for any interested persons.

A fee of $70 per semester hour is charged for all undergraduate and graduate credit courses. During the fall and spring semesters, 9 credit hours for a graduate student and 12 credit hours for an undergraduate student are considered to be full course loads. A graduate student taking 9 or more credit hours will, therefore, be charged no more than $630 and an undergraduate taking 12 or more will be charged no more than $840. The fee for auditing a course is $35.00 per undergraduate or graduate semester hour. Other fees are: registration fee (nonrefundable)—$5; laboratory fee (science, computer science, and language courses)—$25; withdrawal fee (after one class meeting)—$10; course or section change fee—$5; I.D. card—$3. A $20 student activity fee will be assessed for students who desire use of student recreational facilities.

Students who register but later decide not to attend classes will be charged the $5 registration fee and a $10 withdrawal fee for each course. Students who have not cleared their accounts within the first 10 days of class will be disenrolled from all course work. There will be no refunds of tuition after the first 10 days of class.

Scholarships

The purpose of The Citadel's scholarship program is to attract to the college outstanding high school graduates and to assist those worthy students who desire financial help to complete their college education.

How to Apply

An application for a Citadel scholarship must be obtained from the scholarship coordinator, The Citadel, and must be returned to that office no later than January 15 prior to entering in the following fall. Entering freshmen must be accepted for admission to The Citadel before a scholarship application can be considered. Through one application the applicant is considered for all scholarships.

Since a number of scholarships specify need as a condition of the award, each applicant is required to submit a confidential Financial Aid Form (FAF) to the College Scholarship Service.

Entering freshmen should obtain the Financial Aid Form through their local high schools. Cadets should direct their requests to the scholarship office.

Determination of Awards

All scholarship applicants are carefully studied by the Scholarship Committee. They are evaluated on a strict point system where consideration is given to class standing, SAT scores, personal achievement (in high school in the case of entering freshmen), leadership potential, and overall character references. Consideration is necessarily given to the donors' wishes in selecting recipients who meet the criteria set by the individual scholarship deeds of trust. Financial need is taken into account except for certain honorary scholarships and those where the donor specifies otherwise.

Notification of Awards

Applicants are notified in March of the scholarship awarded, or they are advised that no award has been made.

"Normally no student may receive more financial assistance through

the office of the treasurer of the college, from whatever source or sources combined, in a single year than the catalogue costs for that year except that students living on campus will be permitted to retain up to $600 of authorized Pell Grant entitlements for personal expenses and students living off campus will be permitted to retain up to $900 of authorized Pell Grant entitlements for the same purpose."

Each year scholarships are given to cadets entering The Citadel for the first time and, based on both academic and military accomplishments in the Corps, to cadets presently enrolled at the college. The scholarships listed below fall under four categories:

Category I —Authorized by the Scholarship Board of Trustees of the Board of Visitors and selected by The Citadel Scholarship Committee.

Category II —Authorized by the Scholarship Board of Trustees of the Association of Citadel Men and selected by The Citadel Scholarship Committee.

Category III —Authorized by the president of the college and selected by The Citadel Scholarship Committee.

Category IV —Given by individuals or companies directly to recipients without any selected by The Citadel Scholarship Committee.

The Citadel assumes the responsibility for awards given under the first three categories. Listed below are some of the current scholarships:

Category I

The Captain William Forman Abernethy Memorial Scholarship has a value of $1,000. It is awarded annually to the rising senior who has shown the greatest amount of determination and perseverance in improving himself during his years at The Citadel.

The Joe E. Adams, Sr., Class of 1922, Scholarship has been established in his memory by his son, Joe E. Adams, Jr., Class of 1955. This award is restricted to members (or dependents of members) of the Main Street United Methodist Church, Greenwood, South Carolina. Its value is approximately $1,000 a year for four years.

The Joseph D. Aiken Scholarships cover all expenses, as outlined in the catalogue, for the first three years and are supported by a trust fund made possible by a bequest of the late Mr. Joseph D. Aiken. They are limited to applicants from the New England states, with some preference given to Rhode Island and Connecticut residents.

The Lillian Malone and her son, Edgar Stanton Alexander, Scholarship has been established by Mr. Dietrich Biemann Alexander, Class of 1922. Restricted to a cadet from Greenwood County, South Carolina.

The William A. Altman, Jr., Scholarship was established in 1982 by William A. Altman, Jr., Class of 1931. The scholarship is restricted to residents of South Carolina or the son of a South Carolina native who has financial need.

The Fred J. Attaway, III, Scholarship was established by Mr. and Mrs. Fred J. Attaway, Jr., in memory of their son, Class of 1972. This scholarship has a monetary value of up to $1,000 for one year.

The Major James W. Ayers Scholarship is in memory of Major Ayers, Class of 1957, who lost his life in the service of his country in Vietnam. It is given to an entering freshman, with preference to a resident of Berkeley County, interested in becoming a member of the United States Marine Corps upon graduation. The value is up to $500 a year for four years.

M. Ralph Bagnal, Jr., Scholarship was established in 1983 by the Builders Association of the Midlands located in Columbia, South Carolina, in gratitude and appreciation of Mr. M. Ralph Bagnal, Jr.'s, Class of 1947, contributions to the home building industry. The scholarship is restricted to incoming freshman cadets from the state of South Carolina and preferably from the Columbia area. The recipient should be active in the framework of the Citadel Religious Community.

Baruch Scholarships, with a value of $500 to $1,000 each for one year, were inaugurated from the income of a fund donated to The Citadel by the late Mr. Bernard Baruch. Awarded annually to juniors and seniors.

Annie Wysong Benson - Nana Mae Richter Mezell Scholarship was established in 1983 by John C. Benson, Class of 1934, and his wife, Sarah Katherine, in honor and memory of their respective mothers. Restricted to cadets majoring in business administration or political science who are average students (high C's to medium B's). Five year students may be considered. If a rising junior has three brothers who have graduated from The Citadel or two brothers graduated and a third brother in the Corps, he will automatically qualify excluding the above restrictions. The recipient should be active within the framework of the Citadel Religious Community.

The William P. Bowers Scholarships were established by the late Mr. Bowers, Class of 1918, and were enhanced by a bequest from his will.

They pay $1,000 a year and are awarded to South Carolina cadets, with a preference to residents of Hampton County or adjoining counties.

The Alton H. Bryant Memorial Scholarships are worth $1,000 a year for four years. They are in memory of Lieutenant Alton H. Bryant, a graduate of the Class of 1940, who lost his life in the service of his country. Applicants are limited to residents of Orangeburg County, South Carolina.

The Richard P. Cardwell Scholarships were established by General Eugene F. Cardwell and the late Mrs. Cardwell in memory of their son, Cadet Richard P. Cardwell, a member of the Class of 1957. They are awarded each year to members of the Corps of Cadets and have a value of $500 each year for one year.

The Carrigg Scholarships were established by a bequest to The Citadel and have a value of $1,000 a year for four years.

The Frank W. Cayce Memorial Scholarships are four-year scholarships and pay $1,000 a year. These scholarships were made possible by the late Mrs. Zulale J. Dowling, who bequeathed to The Citadel her entire estate for the purpose of establishing an educational scholarship fund in memory of her grandson, Cadet Frank W. Cayce.

The Mark W. Clark Scholarships were established by the late General Mark W. Clark, president emeritus of The Citadel. These scholarships pay $1,000 a year for four years.

The Renie Clark Scholarship is $1,500 a year and awarded each year to a member of the senior class. This scholarship is a memorial to Mrs. Mark W. Clark, who was the first lady of The Citadel for more than 11 years.

Class of 1975 Scholarship was established by the graduating class of that year to be awarded to the rising senior cadet who is in the exact middle of his class. The award pays approximately $100.

The John Murray Compton Scholarship was established in 1986 in memory of the late John Murray Compton, Class of 1943, by his widow Mary Ellen C. Compton and family. The recipient must possess those attributes of ability, character, temperament and personality that are in accord with the traditionally high standards of The Citadel, be a resident of Summerville, South Carolina, but need not be a "Straight A" student. Should a student meeting the criteria not be available, a student from the surrounding Summerville area will be considered.

The Crouch-Lee Scholarships have a value of $500 a year for four years. The James R. Crouch award was founded in 1925 by the late Mr. Crouch, Class of 1899, of Greenville, South Carolina. The William States Lee Scholarship was founded the same year by the late Mr. Lee, Class of 1894, of Charlotte, North Carolina. The deeds provided that the beneficiaries should be limited to residents of South Carolina.

The Henry Deas, Jr., Memorial Scholarship was established by the friends of the late Mr. Henry Deas, Jr., Class of 1938. This award pays $250 in alternate years.

Harry S. Dent Americanism Scholarship was established by U.S. Senator Strom Thurmond, advisor to the John P. Gaty Charitable Trust. Awarded annually to needy and worthy students, selection is based on a paper on Americanism, the specific topic of which is announced prior to January 1. Applications must be submitted by December 1 and manuscripts by March 1 of the academic year preceding the award..

The Louie T. Des Champs Memorial Scholarship was established by Colonel C. A. Des Champs, Class of 1927, in memory of his nephew, Class of 1951. Preference is given to descendants of persons who have served in the armed forces or are residents of California.

The Dillon County Scholarships were established by the late Mr. W. Thomas Dillon and are restricted to cadets from Dillon County, South Carolina.

The Todd L. Dorney Memorial Scholarship was established by his parents in memory of their son, Class of 1980. This scholarship is awarded each year to a rising senior who has been exemplary in his military performance.

The William S. Dosher Scholarships were established by Dr. William S. Dosher and pay $1,000 a year for four years. Preference is given to applicants from Hanover and Brunswick Counties, North Carolina.

The David M. Dunning Scholarship was established by Dr. Peter E. Gutierrez as a memorial to Lieutenant Dunning, Class of 1980. It pays approximately $500 each year, and preference is given to residents of Lake County, Indiana, and then to residents of the State of Indiana.

The duPont Scholarships were established by the late Mrs. Jessie Ball duPont and subsequently increased by a contribution from the Jessie Ball duPont Religious, Charitable, and Educational Fund.

The Captain Timothy Allen Dusenbury Memorial Scholarship, Class of 1974, was established by his widow and is restricted to a senior with a Marine Corps Option NROTC contract. Preference is given to D Company commanders and/or Summerall Guards from the southern section of the United States.

The Milton L. Eliades Memorial Scholarship fund was established by three classmates of the late Major Eliades, Class of 1964. It is available to upperclass cadets.

The Martha Lee and Columbus Jefferson Ellison Scholarship was established by Dr. Reuben Y. Ellison in 1986 in memory of his parents. In selection of a recipient, financial need and South Carolina residency are the primary requirements. In addition, the recipient must possess the attributes of ability, character, temperament, and personality that are in accord with the traditionally high standards of The Citadel.

The J. O. Estes Scholarships were established by Mr. Estes to be awarded to needy Citadel students from Anderson or Greenville Counties, South Carolina.

The Captain Joe Wofford Eubanks Memorial Scholarship was established by the parents of the late Captain Joe Wofford Eubanks, Class of 1969, who lost his life in the service of his country in Vietnam. It is restricted to out-of-state cadets majoring in history and having financial need.

The Thomas Holland Evans Memorial Scholarship was established by Mr. and Mrs. Thomas Evans in memory of their son, Lietuenant Thomas Holland Evans, Class of 1968, who lost his life while in the service of his country. It is given to an entering freshman, and financial need is a major requisite.

Edward M. Foxworth Scholarship Fund was established in 1983 through a generous gift from Ruth G. Foxworth, the wife of Edward M. Foxworth, Class of 1931. The recipient shall be an incoming freshman from South Carolina with high moral character, integrity, a record of concerned citizenship, an outstanding high school record, and financial need. This scholarship may be continued for the sophomore, junior, and senior years if the student is deemed worthy.

Lt. John L. Fuller, Jr., Scholarship was established in 1983 in honor of Lt. John L. Fuller, Jr., Class of 1966, who was killed in Vietnam while serving in the United States Marine Corps. This scholarship has been made possible by his classmates and friends. It is open to any cadet of any class who needs financial assistance.

Anthony D. Griffin Scholarship was established in 1983 in honor of the late Anthony David Griffin, Class of 1974, who was killed in a naval aircraft crash. This scholarship was made possible through pledges of classmates, family, and friends. The scholarship is restricted to senior cadets taking into consideration financial need and membership in the Summerall Guards or Junior Sword Drill (preferably not the commander of either unit).

The Peter E. Gutierrez, M.D., Indiana Scholarship was established by Dr. Gutierrez, Class of 1948. It pays $500 a year for four years to a resident from Indiana, preferably one from Lake County.

The John M. J. Holliday Scholarship was established in 1983 by John M. J. Holliday, Class of 1936, and past chairman of The Citadel Board of Visitors. The scholarship is restricted to incoming freshmen who are South Carolina residents, and preference is given to students from the Pee-Dee area. Although not mandatory, demonstrated scholastic abilities and financial need are considered. This scholarship may be continued for the sophomore, junior, and senior years if the student is deemed worthy.

The James L. Hood, III, Memorial Scholarship was established by Mrs. Hood, as a memorial to her husband, Class of 1971. The award has a value of up to $1,000 a year for four years. It is restricted to applicants from Greenville County, South Carolina.

The Toney B. Jackson Scholarships, established by the late Mr. Toney B. Jackson of the Class of 1915, are given to residents of South Carolina who are members of the sophomore class. These scholarships have a value of up to $500 a year for one year.

The A. John Knebel and Annie Dadin Knebel Scholarship Loan Fund was established in 1983 through a bequeath from the will of the late Annie Dadin Knebel. Rising seniors are given preference, but loans may be made to other cadets or entering students who demonstrate worthiness of such a loan.

The Charles A. Laffitte Memorial Scholarship fund was originally established by the late Colonel Charles A. Laffitte, Class of 1929 and member of the Board of Visitors, and his family. It was further increased by memorial gifts. The awards of $500 to $1,000 a year are made to residents of Allendale and Hampton Counties, and need is a major consideration.

The Freddie Levine Scholarship was established by funds contributed by friends of Lieutenant Freddie Levine, Class of 1955, who died in the service of his country. It pays up to $500 a year for four years to a student with demonstrated need.

The Broadus R. Littlejohn Scholarships were established in 1963 by Mr. Broadus R. Littlejohn, Jr., Class of 1949, in honor of his father. They pay up to $1,000 a year for four years.

The Albert I. Love Memorial Scholarship has a monetary value of up to $500 a year for four years. This scholarship is given to a worthy young man from Colleton County, South Carolina.

The Jacob Clyde Lybrand Memorial Scholarship was established by Mrs. Mamie G. Harley in memory of her late husband.

The David S. McAlister Scholarship was established in honor of Colonel David S. McAlister in recognition of his many years of service to the athletic program at The Citadel. It pays an athlete up to $1,000 a year for four years.

The Gary Milton McCall, Jr., Scholarship was established in 1985 by Mr. & Mrs. Milton McCall, Sr., as a memorial to their late son. The scholarship is restricted to an incoming freshman from South Carolina who has a demonstrated financial need. The recipient will receive the scholarship for the following three years without further qualifications except the requirement that he earn sufficient hours and quality points to be promoted to the next class level and that he maintain the character, temperament, and personality that are in accordance with the traditionally high standards of The Citadel.

The Arthur Pierson McGee Scholarships were established by bequests from the late Colonel Arthur Pierson McGee, Class of 1908, and Mrs. McGee. They pay up to $1,500 a year for four years to a resident of South Carolina, preferably one from Charleston or Dorchester Counties, with athletic ability and financial need.

The Lieutenant Colonel Standley A. McGhan Memorial Scholarship, Class of 1962, was established in 1981 by his widow and family. It is restricted to an out-of-state student.

The William Darwin McConnell Memorial Scholarship was established by a bequest from Mr. McConnell, Class of 1941. The scholarship is restricted to students from South Carolina.

The Colonel Richard Hugh McMaster Memorial Scholarship fund was established by a bequest from the late Major Richard K. McMaster in memory of his father, Class of 1894, and is restricted to a cadet from South Carolina.

The Megonigal Scholarships were established by a bequest to The Citadel. They have a monetary value of up to $500 for one year.

The Dr. J. S. H. Metcalf Scholarship was established in 1986 by The Citadel's Biology Club. Preference shall be given to currently enrolled students who are rising sophomores, juniors, or seniors, are majoring in Biology; have a cumulative GPR of 3.0 or greater; are American citizens with demonstrated financial need; and are not Citadel Scholars.

The Moore-Richards Scholarship was established in memory of the late Marion Latigue Moore, Sr., and Mrs. Jennie Patterson Richards Moore by members of their family. The scholarship is restricted to residents of Sumter and Kershaw Counties, South Carolina.

Milton A. Pearlstine Maritime Scholarship was established in 1983 by the South Carolina Ports Authority to honor Milton A. Pearlstine, Class 1919. The Pearlstine Scholarship is restricted to students in business or related fields.

The Major General Harry K. Pickett Memorial Scholarships are made possible by a bequest of the late General Pickett, Ret., Class of 1911. These scholarships have a value of $1,000 a year for years. They are awarded to young men of high moral character, who are citizens of the State of South Carolina or sons of United States Marines.

The T. R. Pinson Scholarship was established in 1985 in memory of the late Thomas R. "Red" Pinson, Class of 1931, by his family and friends. Selection of a recipient will be based on possession of those attributes of ability, character, temperament and personality that are in accord with the traditionally high standards of The Citadel. A cadet with financial need and who is a Greenwood county resident will receive first preference. If none qualify, then a South Carolina resident will be considered.

The General Edwin A. Pollock Scholarship was established by the Beaufort Citadel Club and friends of General Pollock to honor this outstanding Citadel graduate, Class of 1921. The scholarship has a current value of $500 a year for an athlete from the State of South Carolina, and Beaufort County residents are given preference.

The Captain Anthony G. Prior Scholarship was established in memory of Captain Prior, Class of 1964, who lost his life in the service of his country in Vietnam. It is awarded to a needy young man with a strong desire for a military career. The value is up to $500 a year for four years. A "C" average student will be considered, and preference will be given to a student from the eastern United States.

The Razor Memorial Scholarship was established by Mr. Melvin D. Verson, Class of 1948, as a memorial to the late Colonel Charles T. Razor. The scholarship is restricted to electrical engineering majors, preferably from Illinois or Texas.

The Jesse Timothy Reese Memorial Scholarship was established by Mr. Jesse T. Reese, Jr., Class of 1934, and Mrs. Reese in memory of his father, Class of 1904. This scholarship pays up to $500 a year for four years and is limited to entering freshmen from South Carolina.

The Frances and Tandy Rice Scholarship was established by Tandy C. Rice, Jr., Class of 1961, in honor of his parents. The scholarship pays up to $1,000 a year to an outstanding premedical junior or senior.

The Tandy C. Rice, Jr., Scholarship was established by Jerry Clower in honor of Tandy Rice, Class of 1961.

The Joseph P. Riley, Sr., Scholarship was established by Mr. and Mrs. Riley to be awarded each year to a needy Citadel student from the Charleston area.

A Major Richard H. Schmidt Memorial Scholarship Fund was established by members of Major Schmidt's family. Major Schmidt, Class of 1952, was killed in action in Vietnam. Need is the deciding factor in naming the recipient.

The Anne Seignious Memorial Scholarship was established by the Class of 1942 in memory of Anne Ficken Padgett Seignious, wife of Lieutenant General George M. Seignious, II, Class of 1942, president of The Citadel at the time of her death. The award pays $1,500 a year for four years to a prospective member of the Corps of Cadets.

The William K. Stewart, Jr., and Mary Lee B. Stewart Scholarship was established by William K. Stewart, Jr., Class of 1932, and Mrs. Stewart. Consideration for this scholarship is restricted to Band members who can read music; play a brass, wind, or woodwind instrument; have need; and are not South Carolina residents. Preference in order will be given to residents of the city of Wilmington, North Carolina, eastern North Carolina, or the state of North Carolina. If none of the preferences can be met, any Band member who is not a resident of South Carolina may be considered. A freshman may be considered based on the above criteria and the student's band experience in high school.

Sumter Guards Scholarship was established in 1985 by the Sumter Guards, a corporation organized and existing under an act of the General Assembly of the State of South Carolina. Awarding of this scholarship will be based on financial need and shall be made to persons whose ability, character, personality and temperament conform with Citadel traditions. Preference, in order, will be given to members who have one year in the active company known as the Sumter Guards, sons of members, sons of former members, members who have been active less than one year, members of National Guard units of the Charleston area, residents of Charleston who agree to join the active Sumter Guards, National Guardsman throughout state of South Carolina, or any resident of the Greater Charleston area.

The Edgar A. Terrell Scholarships are worth from $500 for one year to $1,000 a year for four years. They were made possible by a donation from the late Mr. Edgar A. Terrell, Class of 1915, and are limited first to candidates from Mecklenburg County, North Carolina, and then to candidates from the State of North Carolina.

The Hugh Smith Thompson Scholarships were established by Mr. William G. Thompson in memory of his grandather, Hugh Smith Thompson, Class of 1856. Awards are made to non-athletes who have demonstrated needs.

The Captain William Thomson Scholarships were established by a bequest from Captain Thomson. The scholarships pay from $500 for one year to $1,000 a year for four years. Preference is given to students of Scottish descent.

The James Ripley Westmoreland Scholarship has a value of $500 a year for four years. This scholarship is to aid worthy South Carolina young men who are in need of financial assistance to obtain a college education. This scholarship is in memory of Colonel James Ripley Westmoreland, a graduate of the Class of 1900, who served as chairman and a member of the Board of Visitors for many years.

The George Walker White Scholarship is awarded annually to the rising senior civil engineering student who best exemplifies the qualities of a potentially outstanding civil engineer.

The Michael J. Worthy Scholarship was established by Mr. and Mrs.

Fred Worthy in memory of their son. This scholarship is open to young men who are of American Indian descent.

The Judge C. C. Wyche Scholarships are made possible by a gift from the late Judge C. C. Wyche of the Class of 1906 and are restricted to male students from South Carolina.

Category II

Association of Citadel Men Scholarships are maintained by the Association of Citadel Men and are valued at $200 each. The scholarships are awarded for one year only to entering cadets and upperclassmen.

The Oliver J. Bond Scholarship is supported by the income from a trust fund established by alumni as a memorial to the late Colonel Oliver J. Bond, President of The Citadel, 1908-1931. The present value is $1,000 a year for four years.

The Mark Clark Scholarship is $2,000 a year for four years and is supported jointly from an income made possible by the late General Mark W. Clark, President Emeritus of The Citadel, and from a trust fund established in his honor by the alumni.

The James W. Duckett Scholarships are supported by contributions from alumni in honor of Major General James W. Duckett, Past President of The Citadel. These scholarships pay $500 a year for four years.

The Hugh P. Harris Scholarships were established in honor of the late General Hugh P. Harris, Past President of The Citadel. They pay $500 a year for four years.

The George M. Seignious, II, Scholarship is $2,000 a year for four years and is supported by the income from a trust fund established by alumni in honor of Lieutenant General George M. Seignious, Past President of The Citadel.

The Star of the West Scholarships were awarded for the first time in 1952. They cover all college expenses, as outlined in the catalogue, and are supported by the income from an anonymous trust fund. These scholarships are available only to students of outstanding ability and attainment and are not restricted by considerations of financial need or geographical limitations.

The Summerall Scholarship is supported by the income from a trust fund established by alumni as a memorial to the late General Charles

Pelot Summerall, President of The Citadel, 1931-1953. This scholarship is worth $3,000 a year for four years.

The Oscar N. Taylor Scholarship was established by a bequest from Colonel Taylor, Class of 1919, and Mrs. Taylor. The scholarship has a monetary value of $1,500 a year for four years.

Category III

The American Public Works Association Scholarship was established by the South Carolina chapter of that association. It pays $500 a year to a senior civil engineering student who has financial need and is a resident of South Carolina.

The W. W. Benson Scholarship pays all expenses, as outlined in the catalogue. Named in memory of the late Major W. W. Benson, Class of 1907, it is supported by his friends from Greenwood County, South Carolina. Preference is given to athletes from the Greenwood area or from South Carolina, all things being equal.

Cadet Insurance Aid Plan consists of several scholarships maintained by the Cadet Insurance Aid Plan from revenue derived from the dividends of life insurance policies voluntarily purchased by members of graduating classes since 1953. This fund supports both athletic and academic scholarships.

The Christmas Contribution Fund Scholarship is derived from contributions made to this fund in lieu of Christmas cards or as memorials. The monetary value is varied, as the entire amount contributed is awarded each year. This scholarship is open to cadets who have financial need.

The Citadel Development Foundation Scholarships are allotted from the Foundation each year. They have a monetary value of from $750 to $1,000. These scholarships are open to both entering freshmen and currently enrolled students.

Citadel Scholars Scholarship Program is supported by the Citadel Development Foundation to attract outstanding students. Twelve scholarships are awarded each year to residents of South Carolina and six to residents of other states. These scholarships pay all expenses, as listed in the catalogue, for four years. Selections are made by the Committee on Scholarships of The Citadel and are based on scholastic and leadership ability and a personal interview.

The Exchange Club of Charleston Scholarships are awarded each year to one or two outstanding students from Charleston County.

Greenville-Piedmont Citadel Club Scholarship, with a value of $500 is based upon need and is given annually to an outstanding young man from Greenville County.

The Chester E. Hatch, Jr., Memorial Scholarships were established by the widow of Mr. Hatch, Class of 1937. They pay $500 a year to juniors or seniors majoring in chemistry.

The B. Calhoun Hipp Scholarships have a value of $500 for one year. They are awarded annually to young men from the Greenville area or Spartanburg County.

The Class of 1967 Scholarship was established in 1982 by the Class of 1967. It is restricted in order of priority to a son of a deceased member of the Class of 1967, a son of a member of the Class of 1967, a son of an alumnus, or any qualified applicant.

Thomas Jefferson Political Science Scholarship has a monetary value of $1,000 and is awarded each year to an outstanding senior majoring in political science. This scholarship is awarded by the National Society, Southern Dames of America.

The Law Engineering Scholarship was established by Mr. A. J. Glenn, III, P.E., Class of 1953. This $500 award is specified for a senior majoring in civil engineering and recommended by the head, Department of Civil Engineering.

The Lewie G. and Grace M. Merritt Scholarship was established by Mrs. Merritt in memory of her husband, General Lewie G. Merritt, Class of 1917.

The Mark William Motley Memorial Scholarship has been established by his father. It pays $500 to an entering freshman, who has financial need, from the North Carolina, South Carolina, area.

The O. Ray Moore Memorial Scholarships are made possible by a bequeath to The Citadel Development Foundation by the late O. Ray Moore, Class of 1922. This fund provides three in-state and five out-of-state four year scholarships which pay the total expenses as listed in the catalogue. The first awards of these scholarships were made for the 1985 school year.

The Mullen Premedical Scholarships, established by Dr. Donald C. Mullen, Class of 1957, have a value of $500 and are awarded each year to one junior and one senior who are dedicated to becoming physicians, are in the top 25 percent of their classes, and have need.

The Jack Page Memorial Scholarship is awarded each year to an outstanding junior or senior majoring in business administration. The scholarship pays $500 and is sponsored by the National Association of Accountants.

President's Honorary Scholarships are awarded each year by the president of The Citadel to outstanding high-school graduates and outstanding members of the current junior, sophomore, and freshman classes of The Citadel.

The John Douglas Prevatt Scholarship was established by the Francis G. Horne Foundation for an entering freshman in the upper 10 percent of his graduating class or with a minimum of 1200 on his SAT scores. This award pays all catalogue costs for four years. It is limited to students who are residents of North Carolina or South Carolina and are majoring in biology, chemistry, mathematics, or physics. Students majoring in other disciplines but who clearly intend to pursue a career in medicine will be considered. This scholarship is not open to athletes but musical ability is an asset.

The Society of American Military Engineers Scholarship are valued at $250 and are awarded each year to one rising senior and one rising junior who are members of The Citadel Chapter, S.A.M.E.

The South Carolina Electric and Gas Company Scholarship is $750 and is awarded to an outstanding student from South Carolina.

The Spivey Memorial Scholarship pays $1,200 a year for four years. It is restricted to students from Horry County, South Carolina, who have financial need.

The Rufus J. Sprott Scholarships were established by Mrs. Sprott in honor of her late husband, Rufus J. Sprott, Class of 1923. They pay $500 a year and are restricted to cadet residents of South Carolina.

The R. A. Whitney Scholarship was established by Mr. and Mrs. Whitney. It pays $1,000 a year to needy cadets from Beaufort County, South Carolina.

Category IV

There are numerous scholarships of this type. Applicants must apply directly to the individual or organizational donors.

These scholarships are usually highly restricted as to geographical area, employment, and other criteria. It is suggested that the student consult with his high-school counselor, father's employer, minister, or city-county officials for information on education foundations to which he might apply.

For further information, write:
Scholarship Committee
The Citadel
Charleston, S.C. 29409

Application Deadline

The deadline for receipt of completed scholarship applications is January 15.

Restricted Scholarships

Restriction	*Category*	*Name*
California	I	Des Champs
Illinois of Texas	I	Razor (E.E. major)
Indiana	I	Dunning
	I	Gutierrez
New England	I	Aiken
North Carolina	I	Dosher (New Hanover or Brunswick Cos. pref.)
	I	Terrell (Mecklenburg Co.)
North or South Carolina	III	Prevatt (Biology, Chemistry, Math, Physics)
Out-of-State	I	Eubanks
	I	McGhan
South Carolina	I	Altman
	I	Bagnal
	I	Crouch-Lee
	I	Holliday
	I	Jackson (Sophomores)
	I	McConnell
	I	McMaster
	III	O. Ray Moore
	I	Pickett

Restriction	*Category*	*Name*
	I	Reese
	I	Westmoreland
	I	Wyche
	III	Citadel Scholars
	III	O. Ray Moore
	III	South Carolina Electric and Gas
	III	Rufus J. Sprott
Marines	I	Ayers
	I	Dusenbury
	I	Pickett
Band	I	Thomson
	I	Stewart
S.C. Counties		
Allendale	I	Laffitte
Anderson	I	Estes
Beaufort	I	Pollock (Athlete)
	III	Whitney
Berkeley	I	Ayers
Colleton	I	Love
Charleston-Dorchester	I	McGee
	I	Riley
	III	Exchange
Dillon	I	Dillon County
Greenville	I	Estes
	I	Hood
	III	Greenville-Piedmont
	III	Hipp
Greenwood	I	Adams
	I	Alexander
	I	Pinson
	III	Benson (Athlete)
Hampton and Adjoining	I	Bowers
	I	Laffitte

Restriction	*Category*	*Name*
Horry	III	Spivey
Kershaw-Sumter	I	Moore-Richards
Orangeburg	I	Bryant
North Charleston area	III	Motley
Summerville	I	Compton
By Majors:		
Biology	I	Metcalf
Business Administration	I	Benson-Mezell
	III	Page
	I	Pearlstine
Chemistry	III	Hatch
	III	Prevatt
Civil Engineering	I	White
	III	S.A.M.E.
	III	American Public Works
	III	Brantley Construction
	III	Law Engineering
History	I	Eubanks
Physics	III	Prevatt
Premedical	I	Frances and Tandy Rice
	III	Mullen
Political Science	III	Thomas Jefferson
Athletic	I	Benson-Mezell
	I	McAlister
	I	Pollock
Electrical Engineering	I	Razor

Financial Aid

The purpose of student financial aid is to enable qualified students to attend The Citadel.

Any student who applies for admission to The Citadel is eligible to request financial assistance. If he is offered admission and if he demonstrates a financial need, The Citadel will attempt to meet that estimated need.

In administering the aid program, it is assumed that a student and his family will furnish from their own resources that amount they can reasonably be expected to contribute toward college costs. If a student's family is financially stable enough to meet all educational costs, no financial aid will be offered the student. However, if a family cannot meet all costs, the financial aid office will attempt to offer, in behalf of the college, the amount of help which the student needs. Individual awards range from $200 to more than $3,500, depending upon a family's ability to contribute toward its son's expenses.

Satisfactory Progress

All students on aid must be making satisfactory progress toward completing graduation requirements (see Academic Probation and Discharge under Academic Policies of this catalogue).

All students receiving aid while on academic probation will be considered for renewal only when the academic probation has been cleared. This policy includes Guaranteed Student Loans and Federally Insured Student Loans.

Satisfactory progress also applies to Evening College students.

Loans and Grants

The Citadel participates in the National Direct Student Loan Program, Supplemental Educational Opportunity Grant Program, Pell Grant Program, Work-Study Program, the Guaranteed Loan Program, and PLUS Loan Program. To be eligible for aid through these programs, a student must be accepted for admission to The Citadel. In awarding aid under these or other programs, there is no discrimination because of race, creed, color, or national origin. All terms of federal programs are subject to change based on law and regulation changes.

National Direct Student Loan

Both currently enrolled students and new students who have been accepted for admission may apply for these loans. To be eligible for favorable consideration, applicants must establish financial need and give evidence of likely academic success.

To assist in determining financial need, The Citadel requires the parents of all applicants to complete the Financial Aid Form (FAF) published and analyzed by the College Scholarship Service. The Citadel holds membership in the College Scholarship Service.

A qualified student with demonstrated financial need may normally borrow up to $1,500 per academic year. The interest rate of 5 percent is charged on these loans after the repayment period begins (six months after the student ceases to attend an institution of higher learning). If he enters the armed forces, VISTA, or the Peace Corps, he may apply for a deferment of payment, and his repayment begins at the conclusion of his deferment period. If the student enters certain teaching fields or serves in an area of hostilities with the armed forces, his loan may be cancelled on a scheduled basis. A minimum repayment of $50 per month will be required. Repayment of a National Direct Student Loan is made to Wachovia Services, Inc., P.O. Box 3176, Winston-Salem, N.C. 27102.

Supplemental Educational Opportunity Grant Program

The Citadel participates in the Supplemental Educational Opportunity Grant Program as established under Title IV, Part A, of The Higher Education Act of 1965, Public Law 89-319, as amended. This program provides assistance to eligible, qualified high school graduates who have financial need.

Grants will be awarded to a student meeting each of these criteria:

—is a citizen of the United States, or is in the United States for other than a temporary purpose and intends to become a permanent resident thereof;

—has been accepted for enrollment as an undergraduate student or is in good standing and is attending an undergraduate institution;

—shows evidence of academic or creative promise and capability of maintaining good standing in his course of study;

—has financial need, as determined by the institution in accordance with criteria and schedules prescribed by the commissioner, taking into account such factors as the number of dependent children and income and assets of the student's family.

Pell Grant Program

The Pell Grant Program is the newest of the federally funded educational programs. A student demonstrating financial need will be entitled to a grant ranging from $200 to $2,100. Entering students should contact their high schools for detailed information. Presently enrolled students should contact the financial aid office. All students who apply for aid must also apply for the Pell Grant. Application can be made by checking item 45 of the Financial Aid Form.

College Work-Study Program

Students participating in this program have an opportunity to earn part of their college expenses. The Work-Study Program makes jobs available to students at the minimum hourly work rate. Payment will be bimonthly.

The Guaranteed Loan Program

In addition to the loan application, the student must file a Financial Aid Form. No action can be taken on the application until the need analysis from this form is received.

South Carolina Student Loan Corporation (In-State Students)

A South Carolinian, through this program, may borrow up to $2,500 a year to be used toward the expenses of a post-secondary education. Applicant must qualify for federal interest subsidy while he is in school. For information and application write: South Carolina Student Loan Corporation, P.O. Box 21487, Columbia, S.C. 29221. Application must be filed no later than July 1 for fall semester and November 1 for spring semester.

State Guaranteed Loans (Out-of-State Students)

Because of the diversity in regulations governing the program, students and parents interested in their state program are urged to write for information to the State Board of Education, Higher Education Assistance Authority, or similar agency in their home states. The address is available through your high school.

PLUS (Parents') Loan

The PLUS Program was established to ease the financial burden that the costs of post-secondary education place on many families, particularly the middle-income families who generally do not qualify for other forms of financial assistance and who may not have the savings or other liquid assets available to make a single lump sum payment for college costs. Loan funds may be used only to pay for student's educational costs.

To be eligible, you must be:

—The mother, father, legal guardian, or adoptive parent of a *dependent undergraduate* student who is enrolled in good academic standing or accepted for enrollment in an eligible post-secondary school on a full-time basis, and

—a United States citizen or have filed a declaration of intent to become a citizen, and

—need financial assistance to pay school costs.

The interest rate for PLUS loans is actually dependent upon the average of the ninety-one day Treasury Bill rates. The applicable interest rate for all PLUS loans is currently 12 percent per year. As long as the average of the ninety-one day Treasury Bill is equal to or less than 14 percent over any 12-month period, the interest on PLUS loans shall remain at 12 percent.

For each loan you receive, you must pay a minimum of $600 per year ($50 per month) which will normally be arranged over 5 to 10 years. You may choose to accelerate repayment at any time without penalty. Examples of repayment schedules are provided in the application instructions.

George M. and Texie A. Young Stackhouse Memorial Loan Fund

The generosity of the trustees, Hazel S. Stackhouse, Dr. Carl P. Parker, Jr., and the late Will Stackhouse, Jr., who served the trust faithfully during his lifetime, has made it possible to establish the George M. and Texie A. Young Stackhouse Memorial Loan Fund.

Through this program, loans will be made to needy, deprived, and deserving students. The interest rate is 9 percent simple and repayment begins six months after graduation or other disenrollment from the college for any reason. A minimum repayment of $50 per month will be required. Loans will be secured with a note and the signing of the American Creed which pledges loyalty to the United States.

Citadel Development Foundation Loan

Through The Citadel Development Foundation, money is made available for a number of loans each year. These loans are made to students who are financially needy. The interest rate is 9 percent simple, and repayment begins six months after graduation or after disenrollment from the college for any reason. A minimum repayment of $50 per month will be required. Loans will be secured with a note.

Citadel Development Foundation Grant

The Citadel Development Foundation provides money to be used for grants to needy students. These grants range from $100 to $2,000.

ROTC Scholarships

Army, Naval, and Air Force ROTC scholarships, which provide $100 a month and cover tuition, college fees, books, and supplies, are available to high school seniors. Application should be made early in the senior year of high school, preferably by October 30. For further information, write the appropriate military department at The Citadel.

Veterans Benefits

Veterans and the children of deceased or disabled veterans who meet regular admission requirements may be eligible for educational benefits under Public Laws 894, 87-815, or 643. Preliminary application for such benefits must be made to the nearest Regional Office of the Veterans Administration well in advance of the anticipated admission date so that the necessary details and documents may be obtained. Applicants should notify The Citadel's veterans affairs office of his intent to enroll and request that his attendance be certified with the VA.

It is the veteran's responsibility to notify both the VA Regional Office and veterans affairs office of any change in his program. Also, it is the veteran's responsibility to certify his class attendance to the veterans affairs office during the week of the 25th of each month. This is accomplished by completing a certification card available at Room 200, Bond Hall. *Failure to certify attendance will terminate benefits.*

Under new VA regulations, a student must be making normal progress toward completion of his degree. Because of this, any student receiving VA benefits who withdraws from a course after the free drop period will be given a punitive grade for the course.

Commercial Loan Programs

For parents who prefer to pay their educational expenses in monthly installments, names and information on private loans will be forwarded upon request.

Financial Need

For programs which require that financial need be determined. The Citadel requires parents of all applicants to complete and submit a confidential Financial Aid Form (FAF) to the College Scholarship Service.

Entering freshmen should obtain the Financial Aid Form through their local high schools. Cadets should direct their requests to the financial aid office.

Application Deadline

All aid applications for the academic year beginning in August should be received by the financial aid office by March 15. Those received after this date will be considered only if funds are available and then by date received.

Information and Applications

Further information about financial aid programs at The Citadel and application forms should be requested from the Financial Aid Office, The Citadel, Charleston, S.C. 29409.

Sample Repayment Schedules

NATIONAL DIRECT STUDENT LOAN

Principle Amount = $10,000
Interest Rate = 5 percent
Payments per year = 12

Amount Borrowed	No. of Monthly Payments	Monthly Payment Amount	Finance Charges	Total to Be Repaid
$ 1,000	36	$ 30.00	$ 78.67	$ 1,078.67
$ 1,500	57	$ 30.00	$ 185.26	$ 1,685.26
$ 2,000	79	$ 30.00	$ 347.45	$ 2,347.45
$ 2,500	103	$ 30.00	$ 576.62	$ 3,076.62
$ 3,000	119	$ 32.12	$ 807.11	$ 3,807.11
$ 3,500	119	$ 37.47	$ 941.81	$ 4,441.81
$ 4,000	119	$ 42.82	$1,076.52	$ 5,076.52

$ 4,500	119	$ 48.17	$1,211.32	$ 5,711.32
$ 5,000	119	$ 53.53	$1,345.74	$ 6,345.75
$ 5,500	119	$ 58.88	$1,480.49	$ 6,980.49
$ 6,000	119	$ 64.23	$1,615.27	$ 7,615.27
$ 6,500	119	$ 69.58	$1,749.99	$ 8,249.99
$ 7,000	119	$ 74.94	$1,884.43	$ 8,884.43
$ 7,500	119	$ 80.29	$2,019.19	$ 9,519.19
$ 8,000	119	$ 85.64	$2,153.84	$10,153.84
$ 8,500	119	$ 90.99	$2,288.64	$10,788.64
$ 9,000	119	$ 96.35	$2,423.07	$11,423.07
$ 9,500	119	$101.70	$2,557.77	$12,057.77
$10,000	119	$107.05	$2,696.57	$12,692.57

CITADEL DEVELOPMENT FOUNDATION AND STACKHOUSE LOANS

Principal Amount = $500
Interest Rate = 9 percent
Payments per year = 12

Number of Payments	Principal Balance	Interest	Principal Payment	Payment
1	$500.00	$ 3.75	$ 26.25	$ 30.00
2	473.75	3.55	26.45	30.00
3	447.30	3.35	26.65	30.00
4	420.65	3.25	26.85	30.00
5	393.80	2.95	27.05	30.00
6	366.75	2.75	27.25	30.00
7	339.50	2.54	27.46	30.00
8	312.04	2.34	27.66	30.00
9	284.38	2.13	27.87	30.00
10	256.51	1.92	28.08	30.00
11	228.43	1.71	28.29	30.00
12	200.14	1.50	28.50	30.00
13	171.64	1.28	28.72	30.00
14	142.92	1.07	28.93	30.00
15	113.99	0.85	29.15	30.00
16	84.84	0.63	29.37	30.00
17	55.47	0.41	29.59	30.00
18	25.88	0.19	25.88	26.07
	Totals	$36.07	$500.00	$536.07

Department of Student Activities

Student activities are those in which students are involved when outside the classroom. Their purpose is to provide for each student the opportunity to broaden his talents in areas of his liking and capability.

Mark Clark Hall

The department's offices and many of the student activities are housed in Mark Clark Hall, which serves as the student union building. Named after General Mark W. Clark, it has been in use since 1958.

On the first floor are a reception room, canteen, gift shop, post office, bowling alleys, and a game room. The department's offices are on the second floor along with the office of the chaplain to the Corps of Cadets, a TV room, an auditorium, the alcove lounge, a kitchen, the veterans lounge, and two meeting rooms. On the third floor are staff workrooms for student publications, Catholic chaplain's office and chapel, the honor court room, a photographic darkroom, and nine guest rooms.

Beach Club

The Colonel Robert R. McCormick Beach Club is on the Isle of Palms, about a half hour's drive from the campus. It is a functional two-story clubhouse, built on a five-acre tract overlooking the Atlantic Ocean. Quarters are provided for the resident custodian, in addition to a bathhouse, a large ballroom, kitchen, and screened porch. Outside barbecue and grill areas are provided, as well as shuffleboard courts and areas for volleyball and horseshoes. The grounds are floodlighted to facilitate evening parties. Food and beverages are sold on weekends at the Beach Club during the warm weather months. A sheltered picnic area is also available.

College Social Director (Hostess)

The Citadel hostess serves as social advisor for students. Her office is located in the reception room of Mark Clark Hall. Under her supervision, various cadet committees are formed to plan formal and informal socials, the Miss Citadel contest, and other activities. She keeps the reception room open and maintained in good taste for the use of cadets and their guests from 8:30 a.m. to 5 p.m. daily. The hostess can assist in finding off-campus housing for summer school and special students. The hostess maintains an open-door policy and is always willing to assist students in any way possible.

Fine Arts Series

Inaugurated in 1965, the Fine Arts Series has presented annually a wide variety of programs which have been both entertaining and instructive. There are usually five programs presented during the academic year. Included among past performances have been opera singers, musical ensembles, soloists, traditional dance groups from around the world, Shakespearean plays, dramatic presentations, and mime.

Social Events

All Citadel dances are under the sponsorship of the Standing Hop Committee, an organization selected from the three upper classes. Its duties are to set dates for the dances, select bands, and coordinate all plans for the hops.

Citadel hops are the highlights of the social activities of the college. As dances are strictly for and by students, few invitations are issued to civilians. The formal hops held annually are the Homecoming Hop, Ring Hop, and the Corps Day Hop. Although these dances are formal, by tradition corsages are not worn by dates.

Publications

The Brigadier, published by a staff of students, serves as the campus newspaper. Ten issues are published each semester.

The Sphinx, the college yearbook, is pubished annually by a staff of students. This publication serves as a semiofficial record of the year.

The Shako, the literary magazine, is published twice a year.

The Guidon, the cadet handbook, is published annually by a staff of cadets. The handbook contains a complete description of the activities of the college, college history, customs, and duties and responsibilities of cadets, plus other phases of cadet life. It is particularly helpful to entering freshmen. It is mailed to incoming freshmen early in the summer and distributed to other students at the beginning of the college year.

The Student Directory, published in the fall of each year by a student staff of Tau Beta Pi (National Engineering Honor Society), lists names and home addresses of all students at the college.

Financed by allocations from student activities fees, all publications are distributed to all students at no additional charge.

Musical Organizations

The cadet orchestra, known as "The Bulldogs," furnishes music for the ring ceremony, informal dances, the Talent Show, and the Spring Music Festival.

The Citadel Cadet Chorale is a vocal group which sings all types of musical arrangements.

The Citadel band provides music for parades, reviews, and other official ceremonies. The Citadel Bagpipers are an integral part of the Band.

The Citadel "Pep Band" is a group of musicians from within The Citadel Band that performs at Citadel basketball games.

Boating Center

The Citadel Boating Center membership consists of all members of the student body, faculty, and staff. There are no dues connected with the membership, and preference is given to students in the use of the center's facilities.

The club fleet consists of a 73-foot motor yacht, small sailboats, and outboard motorboats, all available to students.

Boating Center facilities consist of a clubhouse, dockage, marine railway, sail loft, and work area for maintenance and repair of small boats. Storage of privately owned boats is available for a small fee.

Clubs and Societies

Membership in a wide variety of clubs, societies, and other organizations is available to all students. Among these are literary and discussion groups, professional societies, military organizations, and recreational clubs. The span of these activities is so broad and so varied that every student should find an organization that fits his interests and talents.

Department of Intercollegiate Athletics

The mission of the Department of Athletics at The Citadel is to develop, maintain, and continue to improve a well-rounded program of athletics geared to the aims and objectives of The Citadel, the Southern Conference, and the National Collegiate Athletic Association.

The Citadel is a member of the NCAA with Division-AA classification in football, and Division I in all other sports. In addition, the college is a member of the Southern Conference, which is comprised of Appalachian State University, The Citadel, Davidson, East Tennessee State University, Furman University, Marshall University, University of Tennessee at Chattanooga, Virginia Military Institute, and Western Carolina University.

The Sports Program

The Citadel athletic program offers opportunities for competition in all sports in which the Southern Conference declares champions. Competent and qualified coaches are employed, adequate facilities are maintained, and well-equipped and supervised trainers and training facilities are provided to achieve these aims. A well-balanced, diversified program is provided within the framework of the educational program as a whole.

In Southern Conference competition, The Citadel has established a winning tradition and has maintained accumulative winning records. Through the years, the list of All-State, All-Conference, and All-American selections has been impressive.

The Department of Intercollegiate Athletics sponsors 11 varsity teams. A cadet-athlete can choose to compete in football, basketball, cross-country, soccer, rifle shooting, wrestling, indoor track, outdoor track, baseball, golf, and tennis. Each year, more than 600 cadets participate as players, managers, or student trainers.

The Citadel, under NCAA and conference regulations, maintains a grant-in-aid program which helps keep cadet teams competitive in the Southern Conference.

Honors and Awards

The Palmetto Award

This award is made by the Board of Visitors in recognition of exceptional performance which reflects great credit on The Citadel or the State of South Carolina. It is to be made to a member of the Corps of Cadets, alumni, faculty, or staff of The Citadel, or any other person whose service to the college or state is deemed worthy of consideration. Members of the Board of Visitors, the president of The Citadel, or the Association of Citadel Men may take nominations for candidates for this award, but recipients must be unanimously approved by the Board of Visitors. This award takes precedence over all other honors awarded by The Citadel with the exception of honorary degrees.

Commencement Honors

The first two commencement honors for students reflect the reputation of the recipient while he was a student at The Citadel and are thus restricted to those graduates who have earned (and are employing to satisfy graduation requirements) a minimum of 90 semester hours at The Citadel.

The Algernon Sydney Sullivan Awards are bronze medallions presented by the college, through the benefaction of the New York Southern Society, to students or others in recognition of high thought and noble behavior. Established by the Society in 1925, the awards have been made to The Citadel since 1933.

The John O. Willson Ring. The bequest of Dr. John O. Willson, a ring is given annually to the cadet member of the senior class voted by his classmates as the manliest, purest, and most courteous member of the class.

All other commencement honors are academic in nature and are open to all graduates who have earned at The Citadel a minimum of one-half the semester hours prescribed in their major course of study. In selecting the recipient of the Scholarship Medal and in determining who will earn their degrees with honors, a true grade-point ratio will be determined.

This ratio will reflect all undergraduate hours attempted, including hours repeated, at The Citadel or other institutions.

The Scholarship Medal is presented annually by the Board of Visitors, and the recipient is designated as the First Honor Graduate. This honor is restricted to those graduates who have earned (and are employing to satisfy graduation requirements) a minimum 90 semester hours at The Citadel and is awarded to the graduate whose overall grade-point ratio, calculated as described above, is highest among the graduating class.

A degree *summa cum laude* is awarded to those students in the graduating class who have achieved a grade-point ratio of 3.90-4.00 on all work taken at The Citadel and whose overall grade-point ratio, calculated as described above, is at least 3.90.

A degree *magna cum laude* is awarded to those students in the graduating class who have achieved a grade-point ratio of at least 3.70-3.89 on all work taken at The Citadel and whose overall grade-point ratio, calculated as described above, is at least 3.70.

A degree *cum laude* is awarded to those students in the graduating class who have achieved a grade-point ratio of at least 3.50-3.69 on all work taken at The Citadel and whose overall grade-point ratio, calculated as described above, is at least 3.50.

The following commencement honors are based solely on work done at The Citadel.

Departmental Honors are awarded on recommendation of heads of departments to those students of the graduating class who have established a grade-point ratio of 3.50 or better in at least 36 hours of work in their major department. This must include all departmental work required in the junior and senior years.

Academic Honors and Awards

Phi Kappa Phi is the only national honor society whose membership is open to scholars of all academic disciplines. Membership in The Citadel Chapter of The Honor Society of Phi Kappa Phi is limited to those undergraduate students who rank scholastically in the upper 4 percent of the junior class or in the upper 8 percent of the senior class. Any member of the faculty whose scholastic record and/or outstanding achievement has rendered him worthy of membership may be extended an invitation to join.

The Dean's List is a recognition given to those students registered for 12 or more semester hours whose grade-point ratio is 3.20 or higher, with no grade below C, for the work of a semester. Medals are awarded and worn on uniforms the following semester.

Gold Stars are awarded to those students on the Dean's List who have made a grade-point ratio of 3.70 or higher for the work of a semester. Stars are worn on the collar of the uniform during the following semester.

The American Legion ROTC Scholastic Excellence Awards are presented to Army, Navy and Air Force ROTC firstclassmen and secondclassmen who have demonstrated outstanding scholastic excellence.

The Francis Marion Award is presented by the Rebecca Motte Chapter, D.A.R., to a cadet of the graduating class for outstanding achievement in American history.

The Granville T. Prior Award consists of key and scroll presented annually by The Citadel History Club to the student whose senior research project is selected by a joint faculty committee as the best in the Departments of English, History, and Political Science.

William E. Mikell Award, a cash award donated by the late William E. Mikell, is awarded to that member of the graduating class having the highest average in English over a three-year period.

The Wall Street Journal Student Achievement Award is donated by the *Wall Street Journal* and awarded to the student having the greatest achievement in business administration during the school year.

The Charles P. Summerall Cup is donated by the European Citadel Association and awarded annually for one year to the company of cadets with the best academic achievement. Companies are rated on the average grade-point ratio (GPR) for each semester plus a factor to reflect the increase or decrease in GPR from first to second semester.

Post-Courier Awards are given by the *Post-Courier* to the best writers on *The Brigadier* staff as chosen by a committee of faculty and staff members.

The Peter Gaillard Memorial Award is given annually by Colonel and Mrs. St. Pierre Gaillard in memory of Peter Gaillard of the Class of 1948 to a graduating firstclassman majoring in electrical engineering on a basis of scholastic attainment, leadership, and participation in extracurricular activities.

The Charles T. Razor Memorial Award is given annually in memory of Colonel Charles T. Razor to a graduating cadet selected by the head of the Department of Electrical Engineering on the basis of scholastic achievement, ability, and willingness to help others.

The Colonel Louis Shepherd LeTellier Award is given annually to a member of the graduating class attaining the highest academic average in civil engineering.

The George Walker White Award is given annually by Mrs. James Boyd Strawn and Mrs. Robert Neal Garrison in memory of their father, Class of 1904. This award goes to a member of the graduating class for outstanding achievement in civil engineering.

The Colonel Christopher Schultz Gadsden Memorial Award, in memory of Colonel Gadsden, Class of 1852, is given annually to the "best all-round civil engineering graduate" as selected by the civil engineering faculty.

The Reuben Burton Pitts, III, Memorial Award is given annually in memory of Cadet Reuben Burton Pitts, III, Class of 1963, to the second-classman who is selected by his classmates as showing the greatest concern for the well-being of other cadets.

The Carlisle Norwood Hastie Award is given annually to the graduating firstclassman who has been selected by his classmates as having shown the most tact, consideration, and courtesy to his fellow students.

The Henry J. Taylor Cup is presented annually to the member of *The Brigadier* staff who has demonstrated the greatest journalistic improvement during the current school year.

The Colonel James K. Coleman Award is in honor of Colonel Coleman, Class of 1919, who established the Department of Political Science at The Citadel. It is given annually by Pi Sigma Alpha, National Political Science Honor Society, to the firstclassman in political science with the highest scholastic record for the four years.

The H. L. Gary Award, consisting of a cash award and a certificate of recognition, is granted annually to a graduating senior for outstanding achievement in European history.

The English Faculty Award, consisting of a cash award and a scroll, is given by the members of the Department of English to an English major who, during an academic year, has submitted an essay, short story, or poem of exceptional merit.

The George E. Reves Award is given annually in memory of Colonel George E. Reves. The award, consisting of a suitably inscribed desk plaque for the recipient and the listing of the recipient's name on a plaque in the Department of Mathematics and Computer Science, is given to the mathematics or computer science major selected by the mathematics faculty on the basis of mathematical ability and outstanding achievements.

The Thomas Francis McGarey Award is a cash award given annually by Mrs. Miriam M. Favorite in memory of her father, Thomas Francis McGarey, Class of 1914, to the outstanding graduating firstclassman in the field of natural science.

The Keith E. Hamilton Award is presented by the Physical Education faculty to the senior physical education major who has demonstrated outstanding academic achievement and potential growth.

The Morris, Duffey, and Boone Award, an embossed copy of *Black's Law Dictionary,* is presented annually at the Lent Reading of The Citadel Inn of Court for excellent in pre-law preparation and service to the Inn.

The Francis Eugene Zemp Award is given annually to the pre-medical student having the highest academic average. The award consists of a plaque given to the recipient and the inscription of his name on the master award plaque which is kept in Byrd Hall.

Military Awards

The Order of Cincinnati Award is presented annually to a cadet officer who has exemplified in the highest degree the qualities of soldier and citizen.

The Wade Hampton Saber is awarded annually by the South Carolina Division, Daughters of The Confederacy, to the member of the first class who is most outstanding in leadership and who makes the greatest contribution to The Citadel while a cadet.

Army ROTC Distinguished Military Student Program—Army ROTC students whose proficiency in military training and whose qualities of leadership and attention to duty have merited the approbation of the professor of military science are designated Distinguished Military Students. They are eligible to apply for appointment as second lieutenants in the Regular Army when they have registered for their last academic year.

The Association of U.S. Army Medal is donated by the Association of the United States Army and awarded annually to the outstanding Army ROTC secondclassman.

The Widder Award is presented annually by Mr. and Mrs. John D. Widder, in memory of their son, Capt. David Widder, USA, Class of 1959, to the outstanding Distinguished Military Student in Army ROTC.

The Washington Light Infantry Marksmanship Trophy and Medals consist of a trophy awarded annually for one year to the organization whose team makes the highest score in smallbore rifle marksmanship and medals awarded annually to the cadets making the highest individual scores. All are presented by the Washington Light Infantry.

Distinguished Naval Students—During the fall semester each year the professor of naval science designates as Distinguished Naval Students (DNS) those senior cadets in the Naval ROTC program who have displayed outstanding qualities in academics, leadership, adaptability to military training, and sound moral character.

The United States Naval Institute Awards consist of a membership certificate in the Naval Institute for a one-year period awarded to an outstanding NROTC regular cadet in the senior class and to an outstanding NROTC contract cadet in the senior class.

The Marine Corps Association Award consists of a certificate and membership in the Association for a one-year period awarded to the outstanding junior or senior Marine-option cadet who has displayed the highest qualities of perseverance, integrity, motivation, and devotion to duty.

The Navy League Sword is awarded annually by the Navy League to the most outstanding cadet to be commissioned in the U.S. Navy or U.S. Marine Corps.

Distinguished Air Force Students (DAFS)—During the fall semester each year, the professor of aerospace studies designates as DAFS, those AFROTC cadets of the first class who have displayed outstanding qualities of leadership, adaptability to military training, and academic achievement.

Air Force ROTC Distinguished Graduates—The professor of aerospace studies may designate as Distinguished Graduates those Air Force cadets who possess outstanding qualities of leadership and have demonstrated those qualities both in their academic classwork and military activities.

This designation is a factor that is considered for appointment in the Regular Air Force during the early years of the junior officer's career.

The Air Force Association Award is presented each year to the outstanding first class AFROTC cadet possessing outstanding leadership characteristics. The winner of this award is also eligible to receive the Aerospace Education Foundation's *W. Randolph Lovelace Memorial Award.*

The General Dynamics AFROTC Cadet Award is donated by Convair Division to a sophomore who has demonstrated outstanding qualities in the AFROTC program.

The Air Force Historical Foundation Award is presented annually to an AFROTC firstclassman in recognition of outstanding leadership, citizenship, academic and military achievement.

Air Force ROTC Awards—Citadel AFROTC cadets are very competitive for other awards to include the *American Fighter Aces Award;* the *USAA Scholarship Award;* the *Virgil I. Grissom Memorial Scholarship Award;* and the AFROTC valor award.

The American Legion Army, Navy and Air Force General Military Excellence Award is presented annually to a cadet in each of the first and second classes who has demonstrated outstanding qualities of military leadership, discipline, character, and citizenship.

The National Defense Transportation Association Award is presented annually to an outstanding ROTC firstclassman majoring in business administration, civil engineering, or political science.

The Society of American Military Engineering Award is awarded annually to a member of the first and second class who is majoring in engineering and has demonstrated outstanding academic achievements.

The South Carolina Reserve Officers Association Awards are donated annually by the Reserve Officers Association and awarded to the outstanding Army, Navy, and Air Force ROTC first, second, and third class cadets for demonstrating courtesy, personal attributes, positive attitude, and promotion potential.

The Daughters of the American Colonists Award is given annually to the firstclassman with the best disciplinary record during his four years at The Citadel.

The Armed Forces Communications and Electronics Association Awards are awarded annually to the outstanding Army, Navy, and Air

Force ROTC first and second class cadets majoring in engineering, mathematics, chemistry, and physics.

Sons of the American Revolution Awards are awarded annually to outstanding Army, Navy, and Air Force fourthclassmen on the basis of leadership ability, soldierly bearing, and excellence in ROTC studies and activities.

The Daughters of the American Revolution ROTC Award is presented annually to an outstanding graduating ROTC cadet selected for academic excellence, leadership ability, adherence to military discipline, dependability and good character, and a fundamental and patriotic understanding of the importance of ROTC training.

The Major William M. Hutson Award is presented annually by Colonel and Mrs. J. C. Hutson in memory of their son, Major William M. Hutson, USAF, Class of 1939, to a rising senior selected for outstanding leadership ability, academic standing, and devotion to duty.

The Commandant's Cup, donated by the late Colonel W. C. Miller, is awarded annually to the best-drilled company.

The W. C. White Medal is presented annually by Mrs. W. C. White to the company commander of the best-drilled company.

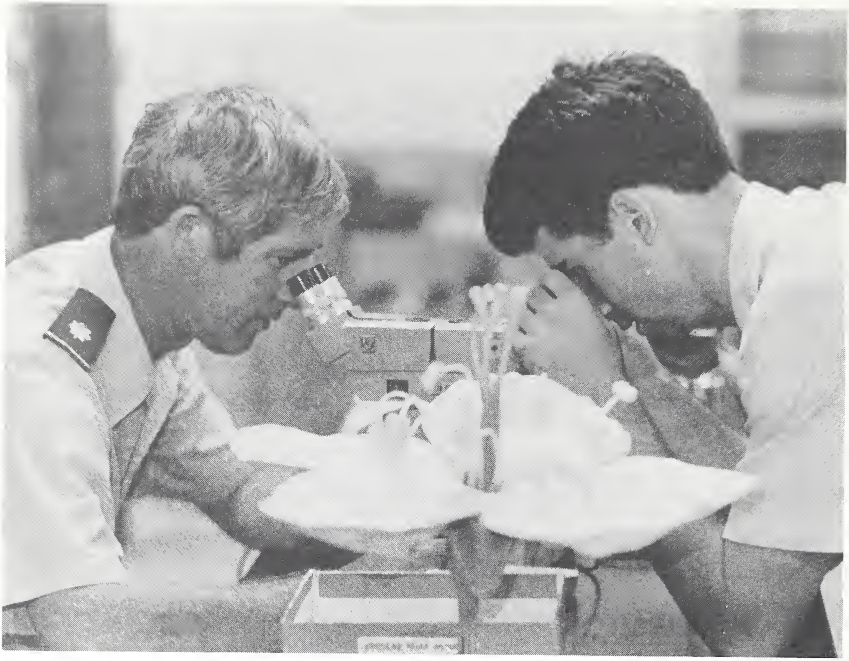
The Kelly Cup, in memory of Captain Benjamin E. Kelly, Jr., USA, Class of 1961, is awarded annually to the squad winning the squad drill competition.

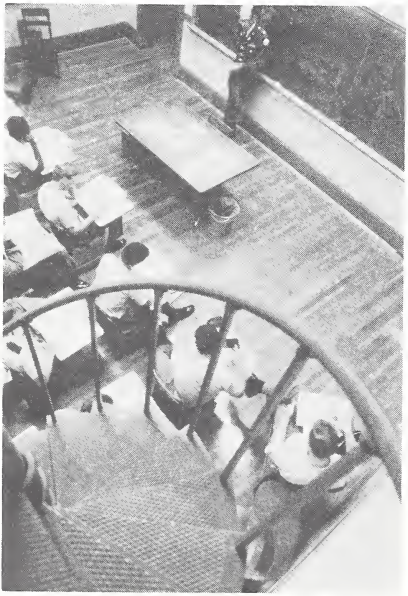
The Star of the West Medal, originally presented to The Citadel by Dr. B. H. Teague, is awarded annually to the best-drilled cadet.

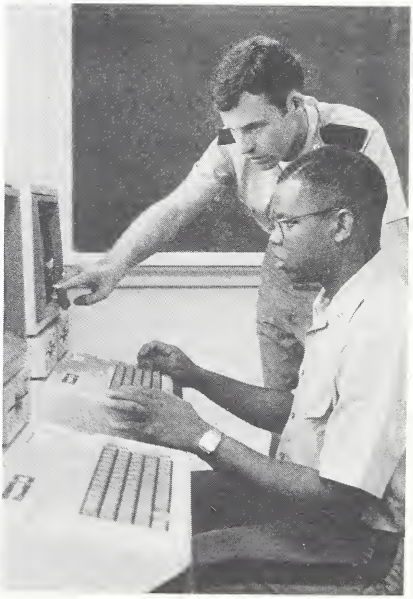
Other Awards

Other prestigious awards for which Citadel cadets in Army, Navy, and Air Force ROTC can compete include: *The Legion of Valor Bronze Cross for Achievement; The Military Order of World Wars Medal; The National Sojourners Award; The American Defense Preparedness Association Award;* and *The Retired Officers Association ROTC Medal.*

The list of awards on the last several pages is not complete, but space precludes a full listing. Many other awards are given in recognition of military and scholastic excellence, as well as meritorious participation in cadet activities and athletics.







Courses of Study

The following pages contain a detailed schedule of the curriculum required for each degree according to the major subject elected. The clock hours and the credit value of each course are noted. The individual courses are described under the appropriate departmental heading in the pages following the schedules.

The geology courses are offered in the Department of Chemistry; the fine arts in the Department of Education; philosophy in the Department of English; geography in the Department of History; computer science in the Department of Mathematics and Computer Science; and sociology and anthropology in the Department of Political Science.

The courses normally scheduled by the fourth class are numbered from 101 upward, by the third class from 201 upward, by the second class from 301 upward, and by the first class from 400 upward.

The courses of study for the various degree programs are detailed on the following pages. Note that all students must take at least two semesters of the *same* science with certain majors specifying the particular courses and that for those majors which require a modern language all four semesters must be in the *same* language. Major work is offered leading to degrees in the following areas: Biology, Business Administration, Chemistry, Civil Engineering, Computer Science, Education, Electrical Engineering, English, History, Mathematics, Modern Languages, Physical Education, Physics, Political Science, and Psychology. A thorough premedical preparation is also available through the B.A. Chemistry or the Biology major.

BIOLOGY MAJOR
Second Semester

FRESHMAN YEAR—

Composition and Literature	80-102	3	(3,0)
A Survey of American History	70-102	3	(3,0)
††College Mathematics II	30-106	3	(3,0)
Introduction to Botany	47-103	4	(3,2)
†1st Year Basic ROTC			
RPE		0	(0,2)

SOPHOMORE YEAR—

Major British Writers	30-202	3	(3,0)
General Chemistry	40-102	3	(3,0)
General Chemistry Laboratory	40-112	1	(0,2)
A Modern Language		3	(3,0)
Physics for Biology and Premedicine	26-206	3	(3,0)
Physics Laboratory for Biology and Premedicine	26-256	1	(0,2)
General Elective		3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

Organic Chemistry	40-208	3	(3,0)
Organic Chemistry Laboratory	40-218	1	(0,3)
A Modern Language		3	(3,0)
Biology Elective		3 (4)	
General Elective		3	(3,0)
General Elective		3	(3,0)
†1st Year Advanced ROTC			

SENIOR YEAR—

Public Speaking	80-205	3	(3,0)
Senior Seminar	47-411	1	(1,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
**Senior Research Project, or	47-420		
Biology Elective		3(4)	
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

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†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

**Prerequisite is approval by department head and supervising professor.

BIOLOGY MAJOR
First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
A Survey of American History	70-101	3	(3,0)
††College Mathematics I	30-105	3	(3,0)
Orientation in Biology	47-100	1	(1,0)
Introduction to Zoology	47-104	4	(3,2)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
General Chemistry	40-101	3	(3,0)
General Chemistry Laboratory	40-111	1	(0,2)
A Modern Language		3	(3,0)
Physics for Biology and Premedicine	26-205	3	(3,0)
Physics Laboratory for Biology and Premedicine	26-255	1	(0,2)
Cell Biology	47-205	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
***Approved Elective		3	(3,0)
Organic Chemistry	40-207	3	(3,0)
Organic Chemistry Laboratory	40-217	1	(0,3)
A Modern Language		3	(3,0)
Biology Elective		3 (4)	
Biology Elective		3 (4)	
†1st Year Advanced ROTC			
SENIOR YEAR—			
Biology Elective		3 (4)	
Biology Elective		3 (4)	
General Elective		3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†2nd Year Advanced ROTC			

The B.S. Biology major requires at least 11 courses, totaling at least 32 credits, in biology. Courses 47-100, 47-103, 47-104, 47-205, and 47-411 are required of all majors. The six remaining electives will include at least one course from each of the following areas: *Physiology:* 47-403, 47-404, 47-425; *Field Biology:* 47-314, 47-321, 47-406, 47-408, 47-409, 47-410, 47-426, 47-490; *Developmental Biology:* 47-208, 47-308, 47-322; 47-401; and at least two courses from *Descriptive Biology:* 47-203, 47-301, 47-302, 47-307, 47-309, 47-310, 47-315, 47-316, 47-402, 47-405, 47-419, 47-492. It is recommended that the biology major take at least one advanced botany and one advanced zoology course. Other requirements are listed above. The modern language shall be Spanish, French, German, or Russian.

*Represents semester hour credits, lectures, and laboratory hours in that sequence.

††Students well founded in algebra are encouraged to substitute 30-106 and 30-107.

***Student must choose either 26-301, 30-211, or 36-201.

BUSINESS ADMINISTRATION MAJOR

First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
Biology, Chemistry, or Physics		4	(3,2)
††College Mathematics I	30-105	3	(3,0)
A Survey of American History	70-101	3	(3,0)
A Modern Language		3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
A Modern Language		3	(3,0)
Economic Origins and Principles	5-201	3	(3,0)
**American National Government	60-102	3	(3,0)
Accounting Principles and Practice I	5-211	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
**Business Law I	5-305	3	(3,0)
**Marketing Principles	5-309	3	(3,0)
**Business Finance	5-321	3	(3,0)
Principles of Management	5-325	3	(3,0)
Departmental Elective		3	(3,0)
ROTC			
SENIOR YEAR—			
Production Management	5-410	3	(3,0)
Departmental Elective		3	(3,0)
Departmental Elective		3	(3,0)
**Departmental Elective		3	(3,0)
Approved Non-Business Elective		3	(3,0)
ROTC			
DEPARTMENTAL ELECTIVES—			
Intermediate Accounting	5-300	3	(3,0)
Intermediate Accounting	5-301	3	(3,0)
Managerial Accounting	5-302	3	(3,0)
Principles of Labor	5-307	3	(3,0)
General Insurance	5-308	3	(3,0)
Government Finance	5-311	3	(3,0)
Intermediate Microeconomic Theory	5-313	3	(3,0)
Intermediate Macroeconomic Theory	5-314	3	(3,0)
Business Statistics II	5-315	3	(3,0)
Business Law II	5-318	3	(3,0)
Business Finance Cases and Applications	5-322	3	(3,0)
Principles of Real Estate	5-326	3	(3,0)
Cost Accounting	5-401	3	(3,0)
Advanced Accounting Problems	4-502	3	(3,0)

Note: Of the seven (7) Departmental Electives in the Business Administration degree program, at least one must be selected from among 5-302, 5-315, and 5-322. Further, at least four (4) Departmental Electives must be selected from courses at the 400-level.

*Represents semester hour credits, lectures, and laboratory hours in that sequence.
**May be taken in first or second semester.
†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.
††Students well founded in algebra are encouraged to substitute 30-106 and 30-107.

BUSINESS ADMINISTRATION MAJOR
Second Semester

FRESHMAN YEAR—

Composition and Literature	80-102	3	(3,0)
Biology, Chemistry, and Physics		4	(3,2)
††College Mathematics II	30-106	3	(3,0)
A Survey of American History	70-102	3	(3,0)
A Modern Language		3	(3,0)
†1st Year Basic ROTC			
RPE		0	(0,2)

SOPHOMORE YEAR—

Major British Writers	80-202	3	(3,0)
A Modern Language		3	(3,0)
Economic Principles and Problems	5-202	3	(3,0)
**Business Statistics I	5-205	3	(3,0)
Accounting Principles and Practice II	5-212	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

**Introduction to Applied Programming	36-215	3	(3,0)
**Communications in Business	5-316	3	(3,0)
**Taxation	5-312	3	(3,0)
Organization Theory and Behavior	5-328	3	(3,0)
Departmental Elective		3	(3,0)
ROTC			

SENIOR YEAR—

Business Policy	5-422	3	(3,0)
Departmental Elective		3	(3,0)
Departmental Elective		3	(3,0)
**Approved Non-Business Elective		3	(3,0)
Approved Non-Business Elective		3	(3,0)
ROTC			

HOURS REQUIRED FOR GRADUATION: 122 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

DEPARTMENTAL ELECTIVES—

Investments	5-404	3	(3,0)
Marketing Management	5-405	3	(3,0)
Transportation	5-406	3	(3,0)
Money and Banking	5-407	3	(3,0)
Bank Management	5-408	3	(3,0)
Personnel Management	5-409	3	(3,0)
International Trade	5-412	3	(3,0)
Auditing	5-416	3	(3,0)
Marketing Problems	5-418	3	(3,0)
Seminar in Business Administration	5-420	3	(3,0)
Management Information Systems	36-306	3	(3,0)
Methods of Operations Research	36-311	3	(3,0)
Methods of Operations Research	36-312	3	(3,0)

B.S. CHEMISTRY MAJOR

First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
General Chemistry	40-101	3	(3,0)
General Chemistry Laboratory	40-111	1	(0,2)
Analytic Geometry and Calculus I	30-131	4	(4,0)
A Modern Language	-101	3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(0,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
Organic Chemistry	40-207	3	(3,0)
Organic Chemistry Laboratory	40-217	1	(0,3)
Analytic Geometry and Calculus III	30-231	4	(4,0)
A Modern Language	-201	3	(3,0)
Ionic Equilibria	40-201	3	(2,2)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Physics for Engineers and Physical Scientists	26-211	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-261	1	(0,2)
Quantitative Analysis	40-300	4	(2,4)
Physical Chemistry	40-305	3	(3,0)
Physical Chemistry Laboratory	30-315	1	(0,3)
A Survey of American History	70-101	3	(3,0)
Chemical Literature	40-308	1	(1,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Inorganic Chemistry	40-401	3	(3,0)
Special Topics in Organic Chemistry	40-403	3	(3,0)
General Elective		3	(3,0)
Physical Chemistry Topics	40-411	3	(3,0)
Senior Research	40-419	2	
Senior Seminar	40-429	1	
†2nd Year Advanced ROTC			

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*Represents seminar hour credits, lectures, and laboratory hours in that sequence.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.S. CHEMISTRY MAJOR
Second Semester

FRESHMAN YEAR—			
Composition and Literature	80-102	3	(3,0)
General Chemistry	40-102	3	(3,0)
General Chemistry Laboratory	40-112	1	(0,1)
Analytic Geometry and Calculus II	30-132	4	(4,0)
A Modern Language	-102	3	(3,0)
†1st Year Basic ROTC			
RPE		0	(0,2)
SOPHOMORE YEAR—			
Major British Writers	80-202	3	(3,0)
Physics for Engineers and Physical Scientists	26-210	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-260	1	(0,2)
Differential Equations	30-232	3	(3,0)
Organic Chemistry	40-208	3	(3,0)
Organic Chemistry Laboratory	40-218	1	(0,3)
A Modern Language	-202	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Physics for Engineers and Physical Scientists	26-212	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-262	1	(0,2)
Instrumental Methods	40-302	4	(2,4)
Physical Chemistry	40-306	3	(3,0)
Physical Chemistry Laboratory	40-316	1	(0,3)
A Survey of American History	70-102	3	(3,0)
Introduction to FORTRAN	36-207	1	(1,1)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Inorganic Chemistry	40-402	3	(3,0)
Inorganic Preparations	40-412	1	(0,3)
Qualitative Organic Analysis	40-408	4	(1,6)
General Elective (non-technical)		3	(3,0)
General Elective		3	(3,0)
Senior Research Project	40-420	1	
Senior Seminar	40-430	0	
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

B.A. CHEMISTRY MAJOR
First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
General Chemistry	40-101	3	(3,0)
General Chemistry Laboratory	40-111	1	(0,2)
College Mathematics II	30-106	3	(3,0)
A Survey of American History	70-101	3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
Organic Chemistry	40-207	3	(3,0)
Organic Chemistry Laboratory	40-217	1	(0,3)
Physics for Biology and Premedicine	26-205	3	(3,0)
Physics Laboratory for Biology and Premedicine	26-255	1	(0,2)
Ionic Equilibria	40-201	3	(2,2)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Quantitative Analysis	40-300	4	(3,2)
A Modern Language	-101	3	(3,0)
Writing in the Professions	80-411	3	(3,0)
Physical Chemistry	40-305	3	(3,0)
Chemical Literature	40-308	1	(1,0)
General Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
A Modern Language	-201	3	(3,0)
Chemistry Elective		3	(3,0)
Approved Elective		3	(3,0)
Approved Elective		3	(3,0)
General Elective		3	(3,0)
Senior Seminar	40-429	1	
†2nd Year Advanced ROTC			

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*Represents semester hour credits, lectures, and laboratory hours in that sequence.

†ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.A. CHEMISTRY MAJOR
Second Semester

FRESHMAN YEAR—

Composition and Literature	80-102	3	(3,0)
General Chemistry	40-102	3	(3,0)
General Chemistry Laboratory	40-112	1	(0,2)
College Mathematics III	30-107	3	(3,0)
A Survey of American History		3	(3,0)
†1st Year Basic ROTC			
RPE		0	(0,2)

SOPHOMORE YEAR—

Major British Writers	80-202	3	(3,0)
Organic Chemistry	40-208	3	(3,0)
Organic Chemistry Laboratory	40-218	1	(0,3)
Physics for Biology and Premedicine	26-206	3	(3,0)
Physics Laboratory for Biology and Premedicine	26-256	1	(0,2)
**General Elective		3	
†2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

Physical Chemistry	40-306	3	(3,0)
A Modern Language	-102	3	(3,0)
Instrumental Methods	40-302	4	(2,4)
Approved Elective		3	(3,0)
General Elective		3	(3,0)
†1st Year Advanced ROTC			

SENIOR YEAR—

A Modern Language	-202	3	(3,0)
Chemistry Elective		3	(3,0)
Approved Elective		3	(3,0)
Approved Elective		3	(3,0)
General Elective		3	(3,0)
Senior Seminar	40-430	0	
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 118 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled in The Citadel.

**Students planning a career in medicine should take 47-104 (Introduction to Zoology) or 47-103 (Introduction to Botany) for the elective in the sophomore year.

CIVIL ENGINEERING MAJOR

First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
General Chemistry	40-101	3	(3,0)
General Chemistry Laboratory	40-111	1	(0,2)
Analytic Geometry and Calculus I	30-131	4	(4,0)
A Survey of American History	70-101	3	(3,0)
Graphic Science	10-101	2	(0,4)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
Physics for Engineers and Physical Scientists	26-210	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-260	1	(0,2)
Analytic Geometry and Calculus III	30-231	4	(4,0)
Surveying	10-205	4	(3,2)
Computer Application for Civil Engineering	10-209	1	(1,1)
Nontechnical Elective		3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Physics for Engineers and Physical Scientists	26-212	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-262	1	(0,2)
Dynamics	10-301	3	(3,0)
Mechanics of Materials	10-303	4	(3,2)
Transportation Engineering	10-305	3	(3,0)
Materials Laboratory	10-307	1	(0,3)
Geology for Engineers	45-303	3	(2,2)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Concrete Laboratory	10-401	1	(0,2)
Reinforced Concrete Design	10-403	3	(3,0)
Structural Analysis II	10-405	3	(2,2)
Environmental Engineering	10-408	3	(3,0)
Fluid Mechanics Laboratory	10-418	1	(0,2)
Introduction to Geotechnical Engineering	10-409	3	(3,0)
Technical Elective		3	(3,0)
Senior Research Project	10-420	0	
†2nd Year Advanced ROTC			

*Represents semester hour credits, lecture, and laboratory hours in that sequence.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

CIVIL ENGINEERING MAJOR

Second Semester

FRESHMAN YEAR—

Composition and Literature	80-102	3	(3,0)
General Chemistry	40-102	3	(3,0)
General Chemistry Laboratory	40-112	1	(0,2)
Analytic Geometry and Calculus II	30-132	4	(4,0)
A Survey of American History	70-102	3	(3,0)
Graphic Science	10-102	2	(0,4)
†1st Year Basic ROTC			
RPE		0	(0,2)

SOPHOMORE YEAR—

Major British Writers	80-202	3	(3,0)
Physics for Engineers and Physical Scientists	26-211	3	(3,0)
Physical Laboratory for Engineers and Physical Scientists	26-261	1	(0,2)
Applied Mathematics I	30-234	4	(4,0)
Statics	10-202	3	(2,2)
Photogrammetry	10-204	1	(0,2)
Surveying	10-206	4	(3,2)
†2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

Highway Engineering	10-306	3	(2,2)
Structural Analysis I	10-308	3	(3,0)
Fluid Mechanics	10-315	3	(3,0)
Engineering Administration	10-314	2	(2,0)
Elements of Electrical Engineering	20-308	3	(2,2)
Nontechnical Elective		3	(3,0)
†1st Year Advanced ROTC			

SENIOR YEAR—

Soil Mechanics Laboratory	10-402	1	(0,2)
Steel Design	10-406	3	(2,2)
Nontechnical Elective		3	(3,0)
Environmental Engineering Laboratory	10-419	1	(0,2)
Geotechnical Engineering II	10-410	3	(3,0)
Reinforced Concrete Design	10-404	3	(3,0)
Senior Research Project	10-420	2	
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 138 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

COMPUTER SCIENCE MAJOR
First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
General Chemistry	40-101	3	(3,0)
General Chemistry Laboratory	40-111	1	(0,2)
Analytic Geometry and Calculus I	30-131	4	(4,0)
A Survey of American History	70-101	3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
A Modern Language		3	(3,0)
Introduction to Discrete Structures	36-206	3	(3,0)
Introductory Statistics	30-211	3	(3,0)
Introduction to Computer Science I	36-201	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
A Modern Language		3	(3,0)
Physics for Engineers and Physical Scientists	26-211	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-261	2	(0,2)
Applied Numerical Methods	36-301	3	(3,0)
Computer Organization and Programming	36-302	3	(3,0)
General Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Digital Systems Fundamentals	20-305	3	(3,0)
File Organization and Database Design	36-320	3	(3,0)
General Elective		3	(3,0)
**Mathematics Elective	30-	3	(3,0)
***Mathematics/Computer Science Elective		3	(3,0)
†2nd Year Advanced ROTC			

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*Represents semester hour credits, lectures, and laboratory hours in that sequence.

**Includes 30-321, 30-324, and any mathematics course numbered at the 300 or 400 level.

***Any mathematics elective and the following computer science courses: 36-311, 36-312.

COMPUTER SCIENCE MAJOR

Second Semester

FRESHMAN YEAR—			
Composition and Literature	80-102	3	(3,0)
General Chemistry	40-102	3	(3,0)
General Chemistry Laboratory	40-112	1	(0,2)
Analytic Geometry and Calculus II	30-132	4	(4,0)
A Survey of American History	70-102	3	(3,0)
†1st Year Basic ROTC			
RPE		0	(0,2)
SOPHOMORE YEAR—			
Major British Writers	80-202	3	(3,0)
Physics for Engineers and Physical Scientists	26-210	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-260	1	(0,2)
A Modern Language		3	(3,0)
Introduction to Computer Science II	36-202	3	(3,0)
Linear Algebra	30-240	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
**Mathematics Elective	30-	3	(3,0)
A Modern Language		3	(3,0)
Introduction to COBOL	36-313	3	(3,0)
Data Structures	36-401	3	(3,0)
Programming Languages	36-402	3	(3,0)
General Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Digital Systems Design	20-428	3	(3,0)
**Mathematics Elective	30-	3	(3,0)
Principles of Compiler Design	36-412	3	(3,0)
Operating Systems and Computer Architecture	36-405	3	(3,0)
General Elective		3	(3,0)
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 123 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

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†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

EDUCATION MAJOR

First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
††College Mathematics I	30-105	3	(3,0)
Introduction to Botany	47-103	4	(3,2)
A Survey of American History	70-101	3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
Physical Science		4	(3,2)
Social Studies (other than History)		3	(3,0)
General Psychology	51-201	3	(3,0)
‡Teaching Field Subject		3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Philosophy of Education	50-301	3	(3,0)
Educational Psychology	50-302	3	(3,0)
Teaching Field Subject		3	(3,0)
Music Appreciation	54-205	3	(3,0)
Personal and Community Health	58-101	3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Teaching Reading in the Secondary School	50-408	3	(3,0)
Methods and Materials of Secondary School Teaching	50-401	3	(3,0)
Teaching Field Subject		3	(3,0)
Teaching Field Subject		3	(3,0)
Teaching Field Subject		3	(3,0)
Approved Elective		3	(3,0)
†2nd Year Advanced ROTC			

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*Represents semester hour credits, lectures, and laboratory hours in that sequence.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however the total hours which may be applied toward graduate requirements may not exceed 16 semester hours.

††Students well founded in algebra are encouraged to substitute 30-106 and 30-107.

‡If teaching field is a science, these will often be 4 hour courses with lab.

EDUCATION MAJOR
Second Semester

FRESHMAN YEAR—			
Composition and Literature	80-102	3	(3,0)
††College Mathematics II	30-106	3	(3,0)
Introduction to Zoology	47-104	4	(3,2)
A Survey of American History	70-102	3	(3,0)
†1st Year Basic ROTC			
RPE		0	(0,2
SOPHOMORE YEAR—			
Major British Writers	80-202	3	(3,0)
Physical Science		4	(3,2)
Social Studies (other than History)		3	(3,0)
Art Appreciation	54-206	3	(3,0)
Introduction to Education	50-201	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Adolescent Development	50-308	3	(3,0)
Teaching Field Subject		3	(3,0)
Teaching Field Subject		3	(3,0)
Teaching Field Subject		3	(3,0)
Approved Elective		3	
†1st Year and 2nd Year Advanced ROTC Army: MS 302 and 402; Navy: NS 302 and 402 or 404; and Air Force: AS 302 and 402			
SENIOR YEAR—			
Social and Cultural History of the Non-Western World	70-417	1	
**Internship in Teaching	50-400	12	
**Special Methods in Teaching	50-402	3	(3,0)

HOURS REQUIRED FOR GRADUATION: 122 (note exceptions below) plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel. Exceptions: for the teaching field of General Science, the required hours are 123; for Mathematics, 124; and for Science, 128, plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

**These courses must be taken in the second semester of the final year.

ELECTRICAL ENGINEERING
First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
General Chemistry	40-101	3	(3,0)
General Chemistry Laboratory	40-111	1	(0,2)
Analytic Geometry and Calculus I	30-131	4	(4,0)
A Survey of American History	70-101	3	(3,0)
Introduction to Engineering	20-103	3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
Analytic Geometry and Calculus III	30-231	4	(4,0)
Physics for Engineers and Physical Scientists	26-211	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-261	1	(0,2)
Introduction to Electrical Engineering	20-201	3	(3,0)
A Survey of American History	70-102	3	(3,0)
†2nd Year Basic ROTC	70-102	3	(3,0)
RPE		0	(0,1)
JUNIOR YEAR—			
Applied Mathematics II	30-335	3	(3,0)
Linear Circuit Analysis	20-309	3	(3,0)
Electromagnetic Fields	20-318	3	(3,0)
Digital Logic and Circuits	20-311	3	(3,0)
Electronics I	20-306	3	(3,0)
Linear Circuits Laboratory	20-301	1	(0,2)
Electronics Laboratory	20-313	1	(0,2)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Design I	20-421	3	(1,4)
Humanities Elective		3	(3,0)
Professional Elective		3	(3,0)
Professional Elective		3	(3,0)
Professional Elective		3	(3,0)
†2nd Year Advanced ROTC			
PROFESSIONAL ELECTIVES—			
Electronics II	20-401	3	(3,0)
Electric Power Systems	20-403	3	(3,0)
Electrical Measurements	20-405	2	(2,0)
Electrical Measurements Laboratory	20-415	1	(0,2)
Systems II	20-407	3	(3,0)
Advanced Topics In Electrical Engineering	20-413	3	(3,0)

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

ELECTRICAL ENGINEERING
Second Semester

FRESHMAN YEAR—

Composition and Literature	80-102	3	(3,0)
Principles of Chemistry	40-106	3	(3,0)
Analytic Geometry and Calculus II	30-132	4	(4,0)
Physics for Engineers and Physical Scientists	26-210	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-260	1	(0,2)
Graphic Communication	20-102	1	(0,2)
†1st Year Basic ROTC			
RPE		0	(0,2)

SOPHOMORE YEAR—

Major British Writers	80-202	3	(3,0)
Applied Mathematics I	30-234	4	(4,0)
Physics for Engineers and Physical Scientists	26-212	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-261	1	(0,2)
Computer Applications for Electrical Engineers	20-206	2	(2,0)
Introduction to Electrical Engineering	20-202	3	(3,0)
Electrical Laboratory	20-204	1	(0,2)
†2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

Systems I	20-312	3	(3,0)
Electromechanical Energy Conversion	20-316	3	(3,0)
Digital Systems Engineering	20-330	3	(3,0)
Electrical Machines Laboratory	20-302	1	(0,2)
Optics (26-305) or Nuclear Engineering (20-307)		3	(3,0)
Engineering Administration	10-314	2	(2,0)
†1st Year Advanced ROTC			

SENIOR YEAR—

Design II	20-422	3	(1,4)
Humanities Elective		3	(3,0)
Professional Elective		3	(3,0)
Professional Elective		3	(3,0)
Professional Elective		3	(3,0)
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 128 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

PROFESSIONAL ELECTIVES—

Antennas and Radiowave Propagation	20-426	3	(3,0)
Quality Control and Reliability	20-404	3	(3,0)
System Simulation	20-414	3	(3,0)
Communications Engineering	20-416	3	(3,0)
Solid-State Devices	20-424	3	(3,0)

ENGLISH MAJOR
First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
††College Mathematics I	30-105	3	(3,0)
A Survey of American History	70-101	3	(3,0)
A Modern Language		3	(3,0)
Biology, Chemistry, or Physics		4	(3,2)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Survey of English Literature	80-213	3	(3,0)
History of Western Civilization	70-221	3	(3,0)
Mythology, or	80-211	3	(3,0)
The Bible as Literature	80-212		
Elective		3	(3,0)
A Modern Language		3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
**Shakespeare, or	80-317	3	(3,0)
Shakespeare	80-318		
**An Elective from Group B		3	(3,0)
English Elective		3	(3,0)
Elective		3	(3,0)
Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
***American Literature		3	(3,0)
**An Elective from Group A		3	(3,0)
English Elective		3	(3,0)
Elective		3	(3,0)
Elective		3	(3,0)
†2nd Year Advanced ROTC			

*Represents semester hour credits, lecture, and laboratory hours in that sequence.

**May be taken first or second semester.

***Students must take six hours of American Literature (80-341, 80-342, 80-343, or 80-344) of which three hours must be 80-342 or 80-343.

††Students well founded in algebra are encouraged to substitute 30-106 and 30-107.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which must be applied toward graduation requirements may not exceed 16 semester hours.

ENGLISH MAJOR
Second Semester

FRESHMAN YEAR—			
Composition and Literature	80-102	3	(3,0)
††College Mathematics II	30-106	3	(3,0)
A Survey of American History	70-102	3	(3,0)
A Modern Language		3	(3,0)
Biology, Chemistry, or Physics		4	(3,2)
†1st Year Basic ROTC			
RPE		0	(0,2)
SOPHOMORE YEAR—			
Survey of English Literature	80-214	3	(3,0)
History of Western Civilization	70-222	3	(3,0)
Introduction to Philosophy	81-201	3	(3,0)
Elective		3	(3,0)
A Modern Language		3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
**Chaucer, or	80-301	3	(3,0)
Milton	80-319		
**An Elective from Group C		3	(3,0)
English Elective		3	(3,0)
Elective		3	(3,0)
Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
***American Literature		3	(3,0)
**An Elective from Group C		3	(3,0)
English Elective		3	(3,0)
Elective		3	(3,0)
Elective		3	(3,0)
†2nd Year Advanced ROTC		3	(3,0)

HOURS REQUIRED FOR GRADUATION: 122 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

HISTORY MAJOR
First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
**College Mathematics I	30-105	3	(3,0)
Introduction to Ancient History	70-121	3	(3,0)
American National Government	60-102	3	(3,0)
A Modern Language		3	(3,0)
***1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
Survey of Modern Europe, 1500-1815		3	(3,0)
A Survey of American History	70-101	3	(3,0)
Biology, Chemistry, or Physics		4	(3,2)
A Modern Language		3	(3,0)
***2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
History of England Since 1485	70-328	3	(3,0)
U.S. Elective	70-	3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
Economic Origins and Principles	5-201	3	(3,0)
***1st Year Advanced ROTC			
SENIOR YEAR—			
History of Modern Russia	70-424	3	(3,0)
U.S. Elective	70-	3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†Political Science Elective	60-	3	(3,0)
***2nd Year Advanced ROTC			

*Represents semester hour credits, lecture, and laboratory hours in that sequence.

**Students well founded in algebra are encouraged to substitute 30-106 and 30-107.

***ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

†Must be numbered at the 300 or 400 level.

HISTORY MAJOR
Second Semester

FRESHMAN YEAR--

Composition and Literature	80-102	3	(3,0)
**College Mathematics II	30-106	3	(3,0)
Introduction to Medieval History	70-122	3	(3,0)
Elementary Geography	71-109	3	(3,0)
A Modern Language		3	(3,0)
***1st Year Basic ROTC			
RPE		0	(0,2)

SOPHOMORE YEAR—

Major British Writers	80-202	3	(3,0)
Survey of Modern Europe, 1815 to Present	70-232	3	(3,0)
A Survey of American History	70-102	3	(3,0)
Biology, Chemistry, or Physics		4	(3,2)
A Modern Language		3	(3,0)
***2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

†Political Science Elective	60-	3	(3,0)
U.S. Elective	70-	3	(3,0)
Elective		3	(3,0)
Elective		3	(3,0)
Economic Origins and Principles	5-202	3	(3,0)
***1st Year Advanced ROTC			

SENIOR YEAR—

The Modernization of China and Japan	70-461	3	(3,0)
U.S. Elective	70-	3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†Political Science Elective	60-	3	(3,0)
***2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 122 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

B.S. MATHEMATICS MAJOR
First Semester

FRESHMAN YEAR—

Composition and Literature	80-101	3	(3,0)*
General Chemistry	40-101	3	(3,0)
General Chemistry Laboratory	40-111	1	(0,2)
Analytic Geometry and Calculus I	30-131	4	(4,0)
A Survey of American History	70-101	3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)

SOPHOMORE YEAR—

Major British Writers	80-201	3	(3,0)
Physics for Engineers and Physical Scientists	26-211	4	(3,2)
Physics Laboratory for Engineers and Physical Scientists	26-261	1	(0,2)
Analytic Geometry and Calculus III	30-231	4	(4,0)
A Survey of American History	70-102	3	(3,0)
German French, or Russian 93-101, 94-101, or	91-101	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

Introduction to Discrete Structures	36-206	3	(3,0)
Applied Mathematics II	30-335	3	(3,0)
Applied Numerical Methods	36-301	3	(3,0)
German, French, or Russian 93-201, 94-201, or	97-201	3	(3,0)
Introductory Statistics	30-211	3	(3,0)
†1st Year Advanced ROTC			

SENIOR YEAR—

Introduction to Analysis I	30-403	3	(3,0)
Modern Algebra	30-303	3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†2nd Year Advanced ROTC			

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*Represents semester hour credits, lectures, and laboratory hours in that sequence.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.S. MATHEMATICS MAJOR
Second Semester

FRESHMAN YEAR—			
Composition and Literature	80-102	3	(3,0)
General Chemistry	40-102	3	(3,0)
General Chemistry Laboratory	40-112	1	(0,2)
Analytic Geometry and Calculus II	30-132	4	(4,0)
Physics for Engineers and Physical Scientists	26-210	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-260	1	(0,2)
†1st Year Basic ROTC			
RPE		0	(0,2)
SOPHOMORE YEAR—			
Major British Writers	80-202	3	(3,0)
Applied Mathematics I	30-234	4	(4,0)
Linear Algebra	30-240	3	(3,0)
German, French, or Russian 93-102, 94-112, or	97-102	3	(3,0)
Introduction to Computer Science I	36-201	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
**Mathematics Elective	30-	3	(3,0)
Numerical Analysis	30-318	3	(3,0)
Complex Analysis	30-422	3	(3,0)
German, French, or Russian 93-202, 94-202, or	97-202	3	(3,0)
General Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
**Mathematics Elective	30-	3	(3,0)
**Mathematics Elective	30-	3	(3,0)
Introduction to Analysis II	30-404	3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)

HOURS REQUIRED FOR GRADUATION: 122 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

**Mathematics electives must be chosen from 30-301, 30-305, 30-405, 30-411, 30-414.

B.A. MATHEMATICS MAJOR

First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
**Biology, Chemistry, or Physics		4	(3,2)
††College Algebra and Trigonometry	30-119	4	(4,0)
A Survey of American History	70-101	3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
Analytic Geometry and Calculus II	30-132	4	(4,0)
Introductory Statistics	30-211	3	(3,0)
A Modern Language		3	(3,0)
Introduction to Computer Science I	36-201	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Linear Algebra	30-240	3	(3,0)
Differential Equations	30-232	3	(3,0)
General Elective		3	(3,0)
A Modern Language		3	(3,0)
***Approved Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
†Mathematics Elective		3	(3,0)
***Approved Elective		3	(3,0)
***Approved Elective		3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†2nd Year Advanced ROTC			

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*Represents semester hour credits, lectures, and laboratory hours in that sequence.

**Must be followed the second semester by four semester hours of the same science. Physics 26-110 and 26-211 may be taken concurrently with 30-131 and 30-132 with permission of the heads of the Departments of Mathematics and Computer Science and Physics.

***The student must select one of five approved sequences of study. Listings of complete courses of study for each of these sequences are available from the Department of Mathematics and Computer Science.

††Students well founded in algebra and trigonometry may substitute 30-131.

‡Includes any mathematics course numbered at the 300 or 400 level.

‡‡Any Mathematics Elective and the following computer science courses: 36-301, 36-311, 36-312.

B.A. MATHEMATICS MAJOR
Second Semester

FRESHMAN YEAR—

Composition and Literature	80-102	3	(3,0)
Biology, Chemistry, or Physics		4	(3,2)
Analytic Geometry and Calculus I	30-131	4	(4,0)
A Survey of American History	70-102	3	(3,0)
†1st Year Basic ROTC			
RPE		0	(0,2)

SOPHOMORE YEAR—

Major British Writers	80-202	3	(3,0)
Analytic Geometry and Calculus III	30-231	4	(4,0)
A Modern Language			
Introduction to Discrete Structures	36-206	3	(3,0)
***Approved Elective		3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

Mathematical Models and Applications	30-301	3	(3,0)
‡Mathematics Elective		3	(3,0)
A Modern Language		3	(3,0)
***Approved Elective		3	(3,0)
General Elective		3	(3,0)
†1st Year Advanced ROTC			

SENIOR YEAR—

***Approved Elective		3	(3,0)
***Approved Elective		3	(3,0)
***Approved Elective		3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 120 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

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†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

MODERN LANGUAGE MAJOR

First Semester

FRESHMAN YEAR—

Composition and Literature	80-101	3	(3,0)*
Biology, Chemistry, or Physics		4	(3,2)
††College Mathematics I	30-105	3	(3,0)
**Elementary Modern Language	-101	3	(3,0)
A Survey of American History	70-101	3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)

SOPHOMORE YEAR—

History of Western Civilization	70-221	3	(3,0)
**Intermediate Modern Language	-201	3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
Major British Writers	80-201	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

**Advanced Modern Language		3	(3,0)
**Advanced Modern Language		3	(3,0)
**Advanced Modern Language		3	(3,0)
General Elective		3	(3,0)
Introduction to Linguistics	90-300	3	(3,0)
†1st Year Advanced ROTC			

SENIOR YEAR—

**Advanced Modern Language		3	(3,0)
**Advanced Modern Language		3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†2nd Year Advanced ROTC			

*Represents semester hour credit, lectures, and laboratory hours in that sequence.

**All courses must be in the same language (German: 93; French: 94; Spanish: 96). French and Spanish students are required to take 301 and 302, and German students must take 311 and 312.

***Two approved electives are required for the major, but may be taken at any appropriate time during any of the terms of the junior or senior year.

††Students well founded in algebra are encouraged to substitute 30-106 and 30-107.

MODERN LANGUAGE MAJOR
Second Semester

FRESHMAN YEAR—

Composition and Literature	80-102	3	(3,0)
Biology, Chemistry, or Physics		4	(3,2)
††College Mathematics II	30-106	3	(3,0)
**Elementary Modern Language	-102	3	(3,0)
A Survey of American History	70-102	3	(3,0)
†1st Year Basic ROTC			
RPE		0	(0,2)

SOPHOMORE YEAR—

History of Western Civilization	70-222	3	(3,0)
**Intermediate Modern Language	-202	3	(3,0)
General Elective		3	(3,0)
Major British Writers	80-202	3	(3,0)
General Elective		3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

**Advanced Modern Language		3	(3,0)
**Advanced Modern Language		3	(3,0)
**Advanced Modern Language		3	(3,0)
***Approved Elective		3	(3,0)
General Elective		3	(3,0)
†1st Year Advanced ROTC			

SENIOR YEAR—

**Advanced Modern Language		3	(3,0)
***Approved Elective		3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 122 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

PHYSICAL EDUCATION MAJOR
Teaching Track
First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
††College Mathematics I	30-105	3	(3,0)
A Survey of American History	70-101	3	(3,0)
Introduction to Physical Education	59-101	3	(3,0)
Personal and Community Health	58-101	3	(3,0)
†1st Year Basic ROTC	-101		
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
Physical Science (Chemistry or Physics)		4	(3,2)
Measurement and Evaluation in Physical Education	59-205	3	(3,0)
Music Appreciation	54-205	3	(3,0)
Applied Methods Elective	59-	2	(1,2)
†2nd Year Basic ROTC	-201		
RPE		0	(0,1)
JUNIOR YEAR—			
Human Anatomy	47-303	3	(3,0)
Human Anatomy Laboratory	47-305	1	(0,2)
Child Development	50-307	3	(3,0)
Educational Psychology	50-302	3	(3,0)
General Elective		3	(3,0)
Applied Methods Elective	59-	2	(1,2)
Elementary School Physical Education	59-433	3	(3,0)
†1st Year Advanced ROTC	-301		
SENIOR YEAR—			
Special Physical Education	59-403	3	(2,2)
Physiology of Exercise	59-419	3	(2,2)
General Elective		3	(3,0)
General Elective		3	(3,0)
Teaching Reading in the Secondary School	50-408	3	(3,0)
†2nd Year Advanced ROTC	-401		

*Represents semester hour credits, lectures, and laboratory hours in that sequence.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

††Students well founded in algebra are encouraged to substitute 30-106 and 30-107.

PHYSICAL EDUCATION MAJOR
Teaching Track
Second Semester

FRESHMAN YEAR—			
Composition and Literature	80-102	3	(3,0)*
††College Mathematics II	30-106	3	(3,0)
A Survey of American History	70-102	3	(3,0)
Introduction to Zoology	47-104	4	(3,2)
Learning Theory and Methodology in Physical Education	59-102	3	(2,2)
†1st Year Basic ROTC	-102		
RPE		0	(0,2)
SOPHOMORE YEAR—			
Major British Writers	80-202	3	(3,0)
Physical Science (Chemistry or Physics)		4	(3,2)
Applied Methods Elective	59-	2	(1,2)
Art Appreciation	54-206	3	(3,0)
Philosophy of Education	50-301	3	(3,0)
†2nd Year Basic ROTC	-202		
RPE		0	(0,1)
JUNIOR YEAR—			
Human Physiology	47-304	3	(3,0)
Human Physiology Laboratory	47-306	1	(0,2)
Kinesiology	59-314	3	(2,2)
Adolescent Development	50-308	3	(3,0)
Care and Prevention of Athletic Injuries	59-402	3	(2,2)
Applied Methods Elective	59-	2	(1,2)
†1st Year Advanced ROTC	-302		
2nd Year Advanced ROTC	-402		
SENIOR YEAR—			
Administration of Physical Education	59-404	3	(3,0)
Internship in Teaching	59-400	12	(2,0)
Social and Cultural History of the Non-Western World	70-417	1	(1,0)
Senior Seminar	59-421	1	(1,0)

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

PHYSICAL EDUCATION MAJOR
Non-Teaching Track
First Semester

FRESHMAN YEAR—

Composition and Literature	80-101	3	(3,0)*
††College Mathematics I	30-105	3	(3,0)
A Survey of American History	70-101	3	(3,0)
Introduction to Physical Education	59-101	3	(3,0)
Personal and Community Health	58-101	3	(3,0)
†1st Year Basic ROTC	-101		
RPE	57-101	0	(0,1)

SOPHOMORE YEAR—

Major British Writers	80-201	3	(3,0)
Physical Science (Chemistry or Physics)		4	(3,2)
Measurement and Evaluation in Physical Education	59-205	3	(3,0)
Applied Methods Elective	59-	2	(1,2)
A Modern Language		3	(3,0)
†2nd Year Basic ROTC	-201		
RPE		0	(0,1)

JUNIOR YEAR—

Human Anatomy	47-303	3	(3,0)
Human Anatomy Laboratory	47-305	1	(0,2)
First Aid and Emergency Care	58-300	3	(3,0)
Applied Methods Elective	59-	2	(1,2)
A Modern Language		3	(3,0)
Approved Elective		3	(3,0)
†1st Year Advanced ROTC	-301		

SENIOR YEAR—

Special Physical Education	59-403	3	(2,2)
Physiology of Exercise	59-419	3	(2,2)
Approved Elective		3	(3,0)
Approved Elective		3	(3,0)
Approved Elective		3	(3,0)
†2nd Year Advanced ROTC	-401		

*Represents semester hour credits, lectures, and laboratory hours in that sequence.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

††Students well founded in algebra are encouraged to substitute 30-106 and 30-107.

PHYSICAL EDUCATION MAJOR
Non-Teaching Track
Second Semester

FRESHMAN YEAR—

Composition and Literature	80-102	3	(3,0)
††College Mathematics II	30-106	3	(3,0)
A Survey of American History	70-102	3	(3,0)
Introduction to Zoology	47-104	4	(3,2)
Learning Theory and Methodology in Physical Education	59-102	3	(2,2)
†1st Year Basic ROTC	-102		
RPE		0	(0,2)

SOPHOMORE YEAR—

Major British Writers	80-202	3	(3,0)
Physical Science (Chemistry or Physics)		4	(3,2)
A Modern Language		3	(3,0)
Applied Methods Elective	59-	2	(1,2)
Introduction to Public Speaking	80-205	3	(3,0)
†2nd Year Basic ROTC	-202		
RPE		0	(0,1)

JUNIOR YEAR—

Human Physiology	47-304	3	(3,0)
Human Physiology Laboratory	47-306	1	(0,2)
Nutrition	58-401	3	(3,0)
Kinesiology	59-314	3	(2,2)
Applied Method Elective	59-	2	(1,2)
A Modern Language		3	(3,0)
Developmental Psychology	51-202	3	(3,0)
†1st Year Advanced ROTC	-302		

SENIOR YEAR—

Care and Prevention of Athletic Injuries	59-402	3	(2,2)
Administration of Physical Education	59-404	3	(3,0)
Drug and Substance Abuse	58-402	3	(3,0)
Approved Elective		3	(3,0)
Directed Field Experience	59-406	3	(1,6)
Senior Seminar	59-421	1	(1,0)
†2nd Year Advanced ROTC	-402		

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

PHYSICS MAJOR

First Semester

FRESHMAN YEAR—			
Modern Physics Lectures	26-101	2	(2,0)*
Analytic Geometry and Calculus I	30-131	4	(4,0)
General Chemistry	40-101	3	(3,0)
General Chemistry Laboratory	40-111	1	(0,2)
A Survey of American History	70-101	3	(3,0)
Composition and Literature	80-101	3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
Physics for Engineers and Physical Scientists	26-211	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-261	1	(0,2)
Analytic Geometry and Calculus III	30-231	4	(4,0)
French, German, Russian, or Spanish		3	(3,0)
A Survey of American History	70-102	3	(3,0)
Major British Writers	80-201	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Electronics Instrumentation	26-307	3	(3,0)
Modern Physics	26-313	3	(3,0)
Analytical Mechanics	26-315	3	(3,0)
Electronic Instrumentation Laboratory	26-357	1	(0,2)
Applied Mathematics II	30-335	3	(3,0)
French, German, Russian, or Spanish		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Electricity and Magnetism	26-403	3	(3,0)
Quantum Mechanics	26-405	3	(3,0)
Research Planning	26-419	1	(0,2)
Advanced Laboratory Physics	26-451	1	(0,2)
General Elective		3	(3,0)
General Elective		3	(3,0)
†2nd Year Advanced ROTC			

*Represents semester hour credits, lectures, and laboratory hours in that sequence.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

PHYSICS MAJOR
Second Semester

FRESHMAN YEAR—

Physics for Engineers and Physical Scientists	26-210	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-260	1	(2,0)
Analytical Geometry and Calculus II	30-132	4	(4,0)
General Chemistry	40-102	3	(3,0)
General Chemistry Laboratory	40-112	1	(0,2)
Composition and Literature	80-102	3	(3,0)
†1st Year Basic ROTC			
RPE		0	(0,2)

SOPHOMORE YEAR—

Physics for Engineers and Physical Scientists	26-212	3	(3,0)
Physics Laboratory for Engineers and Physical Scientists	26-262	1	(0,2)
Applied Mathematics I	30-234	4	(4,0)
French, German, Russian, or Spanish		3	(3,0)
Major British Writers	80-202	3	(3,0)
Approved Elective		3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)

JUNIOR YEAR—

Optics	26-308	3	(3,0)
Analytical Mechanics	26-316	3	(3,0)
Mathematical Physics	26-320	3	(3,0)
Optics Laboratory	26-358	1	(0,2)
Complex Analysis	30-422	3	(3,0)
French, German, Russian, or Spanish		3	(3,0)
†1st Year Advanced ROTC			

SENIOR YEAR—

Electricity and Magnetism	26-404	3	(3,0)
Quantum Mechanics	26-406	3	(3,0)
Thermodynamics	26-410	3	(3,0)
Senior Research Project	26-420	3	
General Elective		3	(3,0)
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

POLITICAL SCIENCE MAJOR

First Semester

FRESHMAN YEAR—			
Introduction to Political Science	60-101	3	(3,0)*
Composition and Literature	80-101	3	(3,0)
††College Mathematics I	30-105	3	(3,0)
A Survey of American History	70-101	3	(3,0)
A Modern Language		3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(1,1)
SOPHOMORE YEAR—			
International Politics	60-231	3	(3,0)
Major British Writers	80-201	3	(3,0)
History of Western Civilization	70-221	3	(3,0)
Biology, Chemistry, or Physics		4	(3,2)
A Modern Language		3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
†††Subfield Required Course	60-	3	(3,0)
American Politics Elective	60-	3	(3,0)
Economics Origins and Principles	5-201	3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Public Administration	60-402	3	(3,0)
†††Subfield Required Course	60-	3	(3,0)
Subfield Elective	60-	3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†2nd Year Advanced ROTC			

*Represents semester hour credits, lectures, and laboratory hours in that sequence.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

††Students well founded in algebra are encouraged to substitute 30-106 and 30-107.

†††Majors must concentrate in one of three subfields (American Government and Politics, International Politics and Military Affairs, or Law and Criminal Justice) during their junior and senior years.

POLITICAL SCIENCE MAJOR
Second Semester

FRESHMAN YEAR—			
American National Government	60-102	3	(3,0)
Composition and Literature	80-102	3	(3,0)
††College Mathematics II	30-106	3	(3,0)
A Survey of American History	70-102	3	(3,0)
A Modern Language		3	(3,0)
†1st Year Basic ROTC			
RPE		0	(0,2)
SOPHOMORE YEAR—			
Comparative Politics	60-232	3	(3,0)
Major British Writers	80-202	3	(3,0)
History of Western Civilization	70-222	3	(3,0)
Biology, Chemistry, or Physics		4	(3,2)
A Modern Language		3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Political Theory	60-392	3	(3,0)
†††Subfield Required Course	60-	3	(3,0)
Economic Principles and Problems	5-202	3	(3,0)
General Elective		3	(3,0)
General Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Constitutional Law: Civil Rights:	60-462	3	(3,0)
Subfield Elective	60-	3	(3,0)
Subfield Elective	60-	3	(3,0)
General Elective		3	(3,0)
Political Science Elective or	60-	3	(3,0)
Senior Research Project	60-498		
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 122 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

PSYCHOLOGY MAJOR

First Semester

FRESHMAN YEAR—			
Composition and Literature	80-101	3	(3,0)*
††College Mathematics I	30-105	3	(3,0)
A Survey of American History	70-101	3	(3,0)
A Modern Language		3	(3,0)
General Psychology	51-201	3	(3,0)
†1st Year Basic ROTC			
RPE	57-101	0	(0,1)
SOPHOMORE YEAR—			
Major British Writers	80-201	3	(3,0)
Biology, Chemistry, or Physics		4	(3,2)
History of Western Civilization	70-221	3	(3,0)
A Modern Language		3	(3,0)
Research Design in Psychology	51-203	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Experimental Psychology I	51-301	3	(3,0)
Theories of Personality	51-306	3	(3,0)
Introduction to Philosophy	81-201	3	(3,0)
Approved Fine Arts Elective		3	(3,0)
Approved Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
Psychology of Learning and Motivation	51-403	3	(3,0)
Applied Psychology	51-404	3	(3,0)
Psychological Testing	51-407	3	(3,0)
Approved Elective		3	(3,0)
Approved Elective		3	(3,0)
†2nd Year Advanced ROTC			

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*Represents semester hour credits, lectures, and laboratory hours in that sequence.

†ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

††Students well founded in algebra are encouraged to substitute 30-106 and 30-107.

PSYCHOLOGY MAJOR
Second Semester

FRESHMAN YEAR—			
Composition and Literature	80-102	3	(3,0)
College Mathematics II	30-106	3	(3,0)
A Survey of American History	70-102	3	(3,0)
A Modern Language		3	(3,0)
Developmental Psychology	51-202	3	(3,0)
†1st Year Basic ROTC			
RPE		0	(0,2)
SOPHOMORE YEAR—			
Major British Writers	80-202	3	(3,0)
Biology, Chemistry, or Physics		4	(3,2)
History of Western Civilization	70-222	3	(3,0)
A Modern Language		3	(3,0)
Social Psychology	51-305	3	(3,0)
†2nd Year Basic ROTC			
RPE		0	(0,1)
JUNIOR YEAR—			
Experimental Psychology II	51-3-2	3	(3,0)
Abnormal Psychology	51-304	3	(3,0)
Animal Behavior, or	47-307	3	(2,2)
Approved Science Elective			
Approved Elective		3	(3,0)
Approved Elective		3	(3,0)
†1st Year Advanced ROTC			
SENIOR YEAR—			
History and Systems of Psychology	51-405	3	(3,0)
Seminar in Contemporary Psychological Issues	51-410	3	(3,0)
Approved Elective		3	(3,0)
Approved Elective		3	(3,0)
Approved Elective		3	(3,0)
†2nd Year Advanced ROTC			

HOURS REQUIRED FOR GRADUATION: 122 plus the credit hours from successful completion of ROTC for all semesters that a cadet is enrolled at The Citadel.

Department of Aerospace Studies

Professor: Newman
Assistant Professors: Balskus, Byrne, Ferrell, Jackson, Raisanen, Rowden, Smiley

Citadel Air Force ROTC courses feature a wide variety of instruction and training opportunities. During the freshman and sophomore years, the curriculum provides students with an understanding of air power's past, present, and future roles in world affairs, as well as its relation to national defense. These courses cover the doctrine, mission, and organization of the defense establishment of the United States and examine the development of air power over the past 80 years.

During the junior and senior years, the Air Force ROTC program draws upon many academic principles. Included are communicative skills and a comprehensive analysis of defense policy and the national defense structure, as well as the meaning of professionalism and professional responsibility, the military justice system, and functions and practices of leadership management principles and problem solving.

Course of Instruction

7-101. *The Air Force Today I* One Credit Hour
(First Semester—Fourth Class Year)

This course and its follow-on provide the student with an introductory survey of the United States Air Force. In the first semester, the course begins with a discussion of the development of the Air Force mission, functions, and organizations; Air Force doctrine, and national strategy. It continues with a discussion of several of the major air commands and their missions. Students are also given an introduction to communicative skills.

Lecture: two hours.

7-102. *The Air Force Today II* One Credit Hour
(Second Semester—Fourth Class Year)

In the second semester this course covers the diverse roles of general purpose and aerospace support forces by examining other major air commands, and separate operating agencies within the Air Force. This course also discusses cooperation with Army and Navy strategic and general forces as well as a survey of NATO/Warsaw Pact and USSR/PRC forces. A continuing emphasis is given to communicative skills.

Lecture: two hours.

7-201. *The Development of Air Power I* One Credit Hour
(First Semester—Third Class Year)

This course explores two broad areas. First, the course examines the development of air power beginning with the first flights of the Wright brothers and ending with World War II. Second, it directs attention to the life of an Air Force officer, discussing such topics as professionalism, leadership, education, and advancement.

Lecture: two hours.

7-202. *The Development of Air Power II* One Credit Hours
(Second Semester—Third Class Year)

As a follow-on to 7-201, this course continues to examine the development of air power. It stresses a variety of events and elements in the history of air power, especially where these provide significant examples of the last 40 years, ending with an examination of the peaceful employment of United States air power.

Lecture: two hours.

7-301. *Air Force Leadership and Management I* Three Credit Hours
(First Semester—Second Class Year)

This integrated management course emphasizes the individual as a manager. Emphasis is given to the manager's environment and job, motivation, and individual and group behavior. Organizational and personal values related to the individual manager's leadership styles are discussed. Also included is a mini-course on individual communicative skills. The student develops his speaking, listening, and writing skills through oral and written presentations of military and current event topics.

Lecture: three hours.

7-302. *Air Force Leadership and Management II* Three Credit Hours
(Second Semester—Second Class Year)

This course deals with aspects of the military manager's work environment beyond the leadership aspect. It discusses, within the context of a military organization, management forces involved in organizational power, politics, responsibilities, and managerial strategy and tactics. Panel discussions and case studies enhance the learning and communicative processes.

Lecture: three hours.

7-401. *U.S. National Security Policy I* Three Credit Hours
(First Semester—First Class Year)

This course studies the policy and process of national security. Specifically, the course reviews the varying U.S. approaches to national policy, the actors and processes involved in the determination of that policy, and key national security issues. An indepth look at the defense community's involvement in national security policy making is stressed.

Lecture: three hours.

7-402. *U.S. National Security Policy II* Three Credit Hours
(Second Semester—First Class Year)

During the second semester the student continues the study of U.S. defense policy. This course stresses the officer's role in the military profession, the changing and demanding role of officership and the military profession, and the impact of professionalism on security policy. The course addresses military law, various contemporary issues which impact national security forces, and essential elements of commissioned service.

Department of Biology

Professors: Baldwin, Crosby, Forsythe, Porcher, Runey, Wallace
Associate Professors: Kelley, Seabury, Bowman

The Biology Department is structured to offer courses which give the student a better understanding of himself, his relationship with his environment, and the diversity of life. Enrichment courses with minimum prerequisites are offered in summer and evening programs for interested individuals.

B.S. Biology Major

Requirements in the major provide courses in physiology, field biology, descriptive biology, and developmental biology which meet the needs of a wide variety of programs in biology, medicine, secondary school science teaching, social work, wildlife or conservation. Additional electives in biology may be selected to fulfill the interests of the individual. Preparation for graduate school is encouraged.

The Biology Department participates in the graduate program of The Citadel, offering either a major or a minor in biology for the Master of Arts in Education degree. The department also participates in the M.S.L degree in marine science offered by the Charleston Consortium of Colleges. Individuals interested in these programs should consult the Graduate School Catalogue.

Also included within the Department of Biology is the Vector Biology Research Program, which conducts biological investigations on medically important anthropods, with special emphasis on mosquitoes. Opportunities exist for the training and participation in various research projects by both undergraduate and graduate students. Interested students should contact the head of the Biology Department.

Premedical-Predental Program

The student who is planning to enter medical school, dental school, veterinary school, or professional school in allied health should consider the B.S. Biology major which will be tailored to his special needs. The core curriculum permits the preprofessional student to tailor his plan of study to each area of specialty. The large number of electives available in the biology curriculum makes it possible for the student to develop the broad science-humanities background necessary in the medical or dental profession.

Course Descriptions for Biology

47-100. *Orientation in Biological Sciences* One Credit Hour

Required of all freshman biology majors.

Normally offered in the fall semester of each academic year.

A course designed to introduce students to the biological sciences. Topics covered will include the history and philosophy of biology, the significance of Greek and Latin terms in biological science, and guidance and counseling in effective study methods. Students will also be exposed to the fields of biology and the career opportunities in them.

Lecture: one hour.

47-103. *Introduction to Botany* Four Credit Hours

Offered in both fall and spring semesters.

An introduction to the plant kingdom; the structure, life processes, reproduction, heredity, evolution, classification, and biological significance of plants.

Lecture: three hours; laboratory two hours.

47-104. *Introduction to Zoology* Four Credit Hours

Offered in both fall and spring semesters.

An introduction to the animal kingdom; the structure, life processes, reproduction, heredity, evolution, classification, and biological significance of animals.

Lecture: three hours; laboratory: two hours.

47-203. *Survey of the Plant Kingdom* Four Credit Hours

Prerequisite: 47-103.

Elective to all majors.

A general survey of the vascular and nonvascular plants. Lecture and laboratory experiences will include a study of the characteristics, life cycles, evolutionary trends, ecological importance, and economic value of each plant group. Both the biology student and the non-major will receive a deeper appreciation of plants in their natural and man-made habitats.

Lecture: three hours; laboratory: two hours.

47-205. *Cell Biology* Three Credit Hours

Prerequisites: 47-103 and 47-104.

Elective to all majors.

Normally offered in the fall semester of each academic year.

An introduction to the morphological, biochemical and biophysical properties of protoplasm and their significance in the life processes.

Lecture: three hours.

47-208. *Evolution* Three Credit Hours

Prerequisites: 47-103 and 47-104.

Elective to all majors.

Normally offered in the spring semester of odd-numbered years.

A basic course in the concepts of evolution and population dynamics. The history of evolutionary thought, the processes of organic evolution, and systematics are conducted.

Lecture: three hours.

47-209. *Man and His Environment* Three Credit Hours

Elective to non-biology majors.

Normally offered in the fall semester of odd-numbered years.

A study of the interdependence of man and his environment. Emphasis will be on man's place in nature, pollution, man-modified habitats, and environmental protection.

Lecture: three hours per week.

47-301. *Invertebrate Zoology* Four Credit Hours

Prerequisite: 47-104.

Elective to all majors.

Normally offered in the fall semester of odd-numbered years.

A general study of the invertebrate animals, including taxonomy, morphology, and ecology.

Lecture: two hours; laboratory: four hours.

47-302. *Comparative Vertebrate Anatomy* Four Credit Hours

Prerequisite: 47-104.

Elective to all majors.

Normally offered in the spring semester of each academic year.

Comparative anatomy of certain vertebrate forms.

Lecture: two hours; laboratory: four hours.

47-303. *Human Anatomy* Three Credit Hours

Prerequisite: 47-104.

Elective to non-biology majors.

Normally offered in the fall semester of each academic year.

Foundation material in mammalian anatomy which has been designed to give an understanding of basic human anatomy. Laboratory 47-305 is optional.

Lecture: three hours.

47-304. *Human Physiology* Three Credit Hours

Prerequisite: 47-104.

Elective to non-biology majors.

Normally offered in the spring semester of each academic year.

An introduction of the basic physics and chemistry of life, including a study of the machinery of the regulatory mechanisms of the human body. Laboratory 47-306 is optional.

Lecture: three hours.

47-305. *Human Anatomy Laboratory* One Credit Hour

Prerequisite: 47-104.

Corequisite or prerequisite: 47-303.

Elective to non-biology majors.

Normally offered in the fall semester of each academic year.

Laboratory exercises to illustrate the relationships of structure of mammalian anatomy.

Laboratory: two hours.

47-306. *Human Physiology Laboratory* One Credit Hour

Prerequisite: 47-104.

Corequisite or prerequisite: 47-304.

Elective to non-biology majors.

Normally offered in the spring semester of each academic year.

The experiments demonstrating the various physiological processes of life.

Laboratory: two hours.

47-307. *Animal Behavior (Ethology)* Three Credit Hours

Prerequisite: 47-104 or 51-201.

Elective to all majors.

Normally offered in the spring semester of even-numbered years.

This course deals with the description, development, and adaptive nature of behavior in free-living animals. The laboratory will emphasize the description and qualifications of behavior patterns.

Lecture: two hours; laboratory: two hours.

47-308. *Genetics* Four Credit Hours

Prerequisite: 47-104 or permission of the instructor.

Elective to all majors.

Normally offered in the spring semester of each academic year.

A study of inheritance, including mendelian genetics, molecular genetics, changes in chromosome structure and number, cytogenetics, and population genetics.

Leture: three hours; laboratory: two hours.

47-309. *Plant Growth and Organization* Three Credit Hours

Prerequisite: 47-103 or permission of the instructor.

Normally offered in the spring semester of odd-numbered years.

This course involves a study of meristem structure and cellular differentiation. A developmental series is considered for both the vegetative and reproductive organs of vascular plants with emphasis on cell types, modifications and changes in orientation.

Lecture: two hours; laboratory: two hours.

47-310. *Microbiology* Four Credit Hours

Prerequisite: 47-103 or approval of department head.

Elective to all majors.

Normally offered in the fall semester of each academic year.

A general study of microorganisms and their importance to man with special emphasis on their fundamental life processes. Includes a brief introduction to epidemiology and immunology.

Lecture: three hours; laboratory: three hours.

47-314. *The Vascular Flora of South Carolina* Four Credit Hours

Prerequisite: 47-103 or approval of instructor.

Elective to all majors.

Normally offered in the fall semester of even-numbered years.

An introductory study of the native vascular flora of South Carolina, emphasizing the identification and collection of native plants. The student will have practice in use of taxonomic keys and in preparation of specimens of The Citadel Herbarium.

Lecture: two hours; laboratory: four hours.

47-315. *Biological Microtechnique and Instrumentation* Three Credit Hours

Prerequisites: 47-103 and 47-104 or permission of the instructor.

Elective to all majors.

Normally offered in the fall semester of even-numbered years.

This course will introduce the student to the techniques of preparing, recording and illustrating biological material for light microscopical studies. The laboratory will stress microtomy, various types of microscopy, cytochemical procedures and photomicrographic techniques and related dark room procedures.

Lecture: two hours; laboratory: two hours.

47-316. *Mycology* Four Credit Hours

Prerequisite: 47-103.

Elective to all majors.

Normally offered in the fall semester of odd-numbered years.

A study of the morphology, classification, and ecology of the fungi commonly found in the coastal area of South Carolina.

Lecture: three hours; laboratory: three hours.

47-321. *General Entomology* Three Credit Hours

Prerequisite: 47-104.

Elective to all majors.

Normally offered in the fall semester of odd-numbered years.

An introduction to the study of insects and closely related arthropods, including their ecology, physiology, morphology, taxonomy, adaptations, and immature stages. Laboratory studies will emphasize field collection methods and curatorial techniques.

Lecture: two hours; laboratory: three hours.

47-322. *History of Biology* Three Credit Hours

Prerequisites: 47-103 and 47-104 or permission of the instructor.

Elective to all majors.

Normally offered in the spring semester of odd-numbered years.

Major aspects of the development of biological sciences and their relationship to other scientific disciplines. Special attention will be paid to the development and content of theories and to changes in the methods of biological research.

Lecture: three hours.

47-401. *Embryology* Four Credit Hours

Prerequisite: 47-104.

Elective to all majors.

Normally offered in the fall semester of odd-numbered years.

Embryology of representative vertebrates, including the amphibian and bird, and additional material on mammals.

Lecture: two hours; laboratory: four hours.

47-402. *Descriptive Histology* Four Credit Hours

Prerequisite: 47-104.

Elective to all majors.

Normally offered in the spring semester of even-numbered years.

A detailed study of the chief types of animal tissues and a description of the histology and organs. Laboratory work includes microscopic study of cells, tissues, and organs of animals, and training in the preparation of microscopic slides.

Lecture: two hours; laboratory: four hours.

47-403. *Animal Physiology* Four Credit Hours

Prerequisites: 47-104 and 40-208 (Organic Chemistry).

Elective to all majors.

Normally offered in the fall semester of each academic year.

A systematic study of the general physiology of animal organ systems.

Lecture: three hours; laboratory: three hours.

This course formerly was entitled Mammalian Physiology.

47-404. *Plant Physiology* Four Credit Hours

Prerequisites: 47-103 and 47-205.

Elective to all majors.

Normally offered in the spring semester of odd-numbered years.

A comprehensive study of the physiological processes of living plants. This course is designed to include both inorganic and organic metabolism while emphasizing the relationships of these processes to the entire plant.

Lecture: three hours; laboratory: three hours.

47-405. *General Parasitology* Three Credit Hours

Prerequisite: 47-104.

Elective to all majors.

Normally offered in the fall semester of even-numbered years.

Taxonomy, morphology, adaptation, and ecology of parasites affecting man and domestic animals. Life history, vectors, and controls are emphasized.

Lecture: two hours; laboratory: two hours.

47-406. *Ecology* Four Credit Hours

Prerequisite: 47-104.

Elective to all majors.

Normally offered in the spring semester of even-numbered years.

An introduction to the study of biological interrelationships and the effects of the environment on the structure and function of animal populations. Laboratory will emphasize methods and materials of ecologcal investigations.

Lecture: two hours; laboratory: four hours.

47-408. *Ornithology* Four Credit Hours

Prerequisite: 47-104.

Elective to all majors.

Normally offered in the spring semester of odd-numbered years.

A study of the structure, function, and ecology of birds. Field trips and bird specimens will give students a working knowledge of birds common to South Carolina.

Lecture: two hours; laboratory: four hours.

47-409. *Marine Biology* Four Credit Hours

Prerequisites: 47-103 and 47-104.

Elective to all juniors and seniors.

Normally offered in the spring semester of odd-numbered years.

The lectures cover major ecological factors and the fundamentals of oceanography. Laboratory work stresses the familiarities with species, taxonomic methods, sampling procedures, experimental design, use of equipment, and data handling.

Lecture: two hours; laboratory: four hours.

47-410. *Vertebrate Natural History* Four Credit Hours

Prerequisite: 47-104.

Elective to all majors.

Normally offered in the fall semester of even-numbered years.

An introduction to the classification, ecology, evolution, and distribution of the vertebrates. Laboratory with emphasis on identification and field study techniques, especially with respect to the vertebrates of South Carolina.

Lecture: three hours; laboratory: two hours.

47-411. *Senior Seminar* One Credit Hour

Required of all biology majors.

Normally offered in both fall and spring semesters.

A group study of current topics of biological interest.

Lecture: one hour.

47-412. *Special Topics in Biology* Three Credit Hours

Prerequisite: permission of the instructor.

Offered on demand.

A course designed for the study of specialized topics in modern biology.

Lecture: three hours.

47-419. *Economic Botany* Three Credit Hours

Prerequisite: 47-103 or approval of instructor.

Elective to all majors.

Normally offered in the spring semester of odd-numbered years.

An introductory course in economic botany devoted to the consideration of plants which are useful or harmful to man; their origins and history, botanical relationships, chemical constituents which make them economically important, and their roles in prehistoric and modern cultures and civilizations.

Lecture: three hours.

47-420. *Senior Research Project* Three Credit Hours

Prerequisite: permission of department head and supervising instructor.

Normally offered in both fall and spring semesters.

Independent study in undergraduate research for serious students planning graduate study.

47-425. *Microbial Physiology* Four Credit Hours

Prerequisite: 47-103 or permission of the instructor. 40-208 and 47-310 are recommended.

Elective to all majors.

Normally offered in the spring semester of even-numbered years.

An in-depth study of metabolic processes of microorganisms and how these processes may interact on other organisms.

Lecture: three hours; laboratory: two hours.

47-426. *Freshwater Biology* Four Credit Hours

Prerequisites: 47-103 and 47-104.

Elective to all majors.

Normally offered in the spring semester of even-numbered years.

The study of freshwater organisms and their environment. Instruction will cover the biological diversity, ecological and physiological adaptations and the physical setting of freshwater systems. Local systems of interest include large coastal rivers and lakes, upper portions of estuaries and old rice fields.

Lecture: two hours; laboratory: four hours.

47-490. *Advanced Field Ecology* Five Credit Hours

Prerequisites: 6 semester hours of field biology and permission of the instructor.

Offered on demand during the summer session.

A traveling seminar and field course to a designated biome or special natural area. Three weeks of directed reading and written preparation are required prior to participation in the field expedition. Field expeditions will normally require a minimum of two weeks' travel time, depending upon the habitats selected and the type of travel required. All expedition participants will be required to prepare a collection of biological specimens that will become part of the permanent collection of the Department of Biology. In addition of tuition costs, students must bear all travel costs (i.e., room, board, and incidental expenses) while on expedition. General Ecology, General Entomology, Vascular Flora, Mycology, and Ornithology are strongly suggested as possible preparatory prerequisites.

Lecture, reading, and written preparation: three weeks.
Expedition time: two weeks.

47-492. *Medical Entomology* Four Credit Hours

Prerequisite: 47-321 or permission of the instructor.
Offered on demand.

A course considering the role of insects and closely related arthropods in the transmission, dissemination, and causation of disease with special emphasis on the diseases of man. This course is designed to provide training in the identification of the medically important arthropods, the disease with which they are associated, ventor survey techniques, and the general ecology of disease vectors.

Lecture: three hours; laboratory: two hours.

Department of Business Administration

Professors: Wittschen, Spivey
Associate Professors: Whitney, Rebber, Craig, Pokryfka, Evans, Bebensee, Strauch, Moore
Assistant Professors: Alford, Mahoney, Haughey, Hite, Blizzard, Hiers
The Robert A. Jolley Professor of Business Administration: King

The Department of Business Administration offers courses designed to provide students with the concepts, theories, tools, and experiences necessary to prepare them for professional managerial careers in both the private and public sectors of our economy.

A student majoring in business administration completes a three-phase program of study. The first phase consists of basic courses in mathematics, science, social services, and the humanities. Upon completion of these foundation courses, the student undertakes the second phase, which consists of a core curriculum of required courses in business administration. Included in this phase are courses related to all aspects of the business environment, including accounting, economics, management, marketing, finance, and business law. The third phase, beginning in the junior year, is comprised of business and nonbusiness electives. These electives are intended to allow the student sufficient flexibility to examine broad administrative concepts and relationships and to develop an in-depth understanding of specific areas of personal interest.

The Department of Business Administration also offers a program of study leading to the degree of Master of Business Administration. Persons interested in this program, which is offered only through evening classes, should consult the Graduate Programs catalogue for further information.

5-201. *Economic Origins and Principles* Three Credit Hours

Required of all business administration sophomores.

A study of the origins of capitalism and the development of economic institutions; an introduction to economic principles, including an analysis to the determination of national income and its fluctuations, an introduction to money, banking, and government finance.

5-202. *Economic Principles and Problems* Three Credit Hours

Prerequisite: 5-201.

Required of all business administration sophomores.

A study of value and price, including factors affecting short- and long-run adjustments of the individual firm with respect to prices, costs, and levels of production; value and price determination; market adjustments in competition and monopoly; distribution of income; and current economic problems.

5-205. *Business Statistics I* Three Credit Hours

Prerequisite: completion of required freshman mathematics.

This course deals with the organization of statistical injury and the presentation of its results in tabular and graphic form. Also covered are frequency distributions (with emphasis on the normal), measures of central tendencies, measures of dispersion, theories of sampling and probability, time series, and estimation and hypothesis testing.

5-211. *Accounting Principles and Practices I* Three Credit Hours

Required of all business administration sophomores.

A study of the fundamentals of accounting, including the analysis and recording of business transactions and the preparation of financial statements.

5-212. *Accounting Principles and Practice II* Three Credit Hours

Prerequisite: 5-211.

Required of all business administration sophomores.

A continuation of 5-211 with emphasis on accounting systems, partnerships, corporations, and cost accounting theory.

5-300. *Intermediate Accounting I* Three Credit Hours

Prerequisite: 5-212.

Elective for business administration majors and others.

An emphasis of the balance sheet and the income statement with particular emphasis on the technique of evaluation of items comprising these statements.

5-301. *Intermediate Accounting II* Three Credit Hours

Prerequisite: 5-300.

Elective for business administration majors and others.

A continuation of 5-300 with emphasis on balance sheet liabilities and capital, the statement of changes in financial position, and the analysis of financial statements.

5-302. *Managerial Accounting* Three Credit Hours

Prerequisite: 5-212.

Elective for business administration majors and others.

A study of the accumulation and analysis of accounting data for management control and decision-making.

5-305. *Business Law I* Three Credit Hours

Required of all business administration juniors.

A study of the law as it relates to business, including court procedure, cases, decisions, and the Uniform Commercial Code, with primary emphasis on contracts and negotiable instruments.

5-307. *Principles of Labor* Three Credit Hours

Prerequisite: 5-202.

Elective for business administration majors and others.

An analysis of the worker's position in modern industry and the effects of industrial production on the worker's social position; introduction to the problems of wages, hours, working conditions, child labor, industrial accidents, unemployment, trade unions, and collective bargaining; economic problems of the worker under current labor legislation.

5-308. *General Insurance* Three Credit Hours

Elective for business administration majors and others.

A course in predictable business risks and the methods of minimizing these risks through insurance; intelligent planning of a program of coverages and rates of life, fire, and casualty insurance.

5-309. *Marketing Principles* Three Credit Hours

Prerequisite: 5-202.

Required of all business administration juniors.

The activities necessary to effect the distribution of goods from producer to consumer, consumer behavior, the marketing institutions, the marketing functions, examination of important marketing policy and problem areas.

5-311. *Government Finance* Three Credit Hours

Prerequisite: 5-202.

Elective for business administration majors and others.

A survey of the theory and practice of taxation, public revenue, public expenditure, and public debt; budgeting and fiscal policy; general principles and practices of income taxes, consumption taxes, death taxes, and corporation and other business taxes.

5-312. *Taxation* Three Credit Hours

Prerequisite: 5-212.

Required of all business administration juniors.

A study of the basic principles of income taxation, including a thorough analysis of the present Federal law dealing with both individuals and corporations.

5-313. *Intermediate Microeconomic Theory* Three Credit Hours

Prerequisite: 5-202.

Elective for business administration majors and others.

A more advanced treatment of value theory. The production and consumption activities of individual economic units are analyzed. Areas of concentration include the theory of consumer behavior, cost analysis, production and distribution theory, general equilibrium, and welfare criteria.

5-314. *Intermediate Macroeconomic Theory* Three Credit Hours

Prerequisite: 5-202.

Elective for business administration majors and others.

A course designed to give the student a comprehensive understanding of national income, its measurement and analysis, including a study of business cycles, economic growth, and economic policies.

5-315. *Business Statistics II* Three Credit Hours

Prerequisite: 5-205.

Elective for business administration majors and others.

A continuation of 5-205, including an introduction to t, Poisson, and Chi-square distributions, tests of significance, regression and correlation analysis, index numbers, and simple and multiple correlation, as well as a more sophisticated exploration of sampling and probability theory.

5-316. *Communications in Business* Three Credit Hours

Prerequisite: 5-202.

Required of business administration juniors.

A study of communication in business as related primarily to the writing of business reports, research procedures, and business letters. The course is designed to stress clarity, conciseness, and logical presentation.

5-318. *Business Law II* Three Credit Hours

Prerequisite: 5-305.

Elective for business administration majors and others.

A continuation of Business Law I, 5-305, with emphasis on creditors' rights, agency and employment, and personal and real property.

5-321. *Business Finance* Three Credit Hours

Prerequisite: 5-212.

Required of all business administration juniors.

A survey of forms of business organization and of business financial politics and methods of planning and control; an analysis of the factors affecting the capital structure of corporation and the proper use of different types of securities; budgetary procedures.

5-322. *Business Finance Cases and Applications* Three Credit Hours

Prerequisite: 5-321.

Elective for business administration juniors.

Principles and practices of the financing of non-financial corporations; emphasis on the role of the finance executive in a business organization; problems and cases to demonstrate solutions to managerial decisions involving cash flow and capital structure analysis.

5-325. *Principles of Management* Three Credit Hours

Required of all business administration juniors.

A survey of the evolutionary and comprehensive principles of management applicable to all forms of business; and exploration of the management process as the performance of planning, organizing, directing, and controlling complex business situations.

5-326. *Principles of Real Estate* Three Credit Hours

Elective for business administration majors and others.

This course provides a basic understanding of the legal, financial, and ethical rights and obligations of all parties to a real estate transaction. Topics covered include the organization and functioning of real estate institutions, real estate mathematics and finance, marketing and brokerage, property appraisal, property management, residential constructions, and closing cost estimation. In addition, personal and professional development wil be examined for the benefit of those contemplating a career in real estate.

5-328. *Organization Theory and Behavior* Three Credit Hours

Required of business administration juniors; elective to others.

An examination of human behavior in business administrations. Concepts and skills related to sound management are developed, and application of recent theories to organizational practice is discussed.

5-330. *Personal Finance* Three Credit Hours

Elective for non-business majors.

A course dealing with aspects of family finance, including budgeting, savings programs, insurance protection, installment buying, home planning and financing, investments in stocks and bonds, and estate planning.

5-401. *Cost Accounting* Three Credit Hours
Prerequisite: 5-300.
Elective for business administration majors.

A course in the principles of cost accounting, including the accounting for materials, labor, and overhead under the job-order, process, and standard cost systems.

5-402. *Advanced Accounting Problems* Three Credit Hours
Prerequisite: 5-300.
Elective for business administration majors.

A study of advanced accounting problems relating to partnerships, consolidations, consignments, installment sales, branch accounting, bankruptcy, and fund accounting.

5-404. *Investments* Three Credit Hours
Prerequisite: 5-322.
Elective for business administration majors.

A study in personal finance and security analysis; buying and selling procedure; stock exchanges; and the relative merits of types of securities as an investment or speculation.

5-405. *Marketing Management* Three Credit Hours
Prerequisites: 5-309 and 5-325.
Elective for business administration seniors.

Marketing management primarily for the manufacturer; planning the product; planning for promotion; investigation of the market; pricing and price policy; planning the sales organization; management of sales personnel.

5-406. *Transportation* Three Credit Hours
Prerequisite: 5-405.
Elective for business administration majors.

A study of the history, geography, and economics of all forms of transportation; transport pricing; public regulations; public policy; current problems such as competition between modes of transportation.

5-407. *Money and Banking* Three Credit Hours
Prerequisites: 5-201 and 5-202.
Elective for business administration.

The nature and functions of money; the various monetary standards; the development of our monetary system; the factors affecting the value of money; methods and objectives of money and credit control; international exchange; analysis of recent developments in money and credit.

5-408. *Bank Management* Three Credit Hours

Prerequisite: 5-407.

Elective for business administration majors.

A study of the development and structure of the commercial banking system; a description and analysis of the operations of our commercial banks and an investigation of the techniques and principles followed by commercial banks in the performance of their many functions.

5-409. *Personnel Mangement* Three Credit Hours

Prerequisites: 5-307 and 5-325.

Elective for business administration majors and others.

A contemporary course in the management of human resources, designed to recognize and evaluate the change in the behavioral science approach in the study of personnel administration, to include the principles and practices of manpower development and performance improvement.

5-410. *Production Management* Three Credit Hours

Prerequisites: 5-202, 5-205, 5-212, and 5-325.

Required of all business administration seniors.

Analysis of the production function as the planning, organizing, directing, and controlling of the required activities and resources necessary to produce products and services. Discussion of managerial problems in the areas of plant design and location, production standards, operations planning and control, product development, materials handling, and inventory control.

5-412. *International Trade* Three Credit Hours

Prerequisite: 5-202.

Elective for business administration majors and others.

An analysis of the theoretical principles underlying international specializing and exchange, the making of international payments, the relation of international payments to national income, and the application of these principles to recent historical developments and to current national policies. An introduction survey is provided to the network, composition, and sources of world trade.

5-416. *Auditing* Three Credit Hours

Prerequisite: 5-300.

Elective for business administration majors and others.

A study of auditing procedures with the emphasis on how to conduct an audit in a logical, proper manner, applying acceptable auditing standards. A coverage of internal control and accounting knowledge as applied to auditing.

5-418. *Marketing Problems* Three Credit Hours

Prerequisite: 5-309.

Elective for business administration majors.

An advanced course in marketing management with emphasis on cases and problems involving marketing research, promotion, distribution, consumer behavior, and government regulations.

5-422. *Business Policy* Three Credit Hours

Prerequisite: senior standing in business administration.

Required of all business administration seniors.

A capstone course designed to give the student practice in integrating the numerous theory courses in all phases of business management. In the role of a top manager, the student applies these theories to the solution of problems in practical business cases. Throughout the semester the student makes decisions to direct the operation of a simulated business in a competitive market.

5-430-435. *Seminar in Business Administration* Three Credit Hours

Prerequisite: approval of course instructor and department head.

Elective for business administration majors.

This course is designed to provide students of exceptional ability and background with the opportunity to explore a variety of advanced, business-oriented, analytical techniques. Specified topics covered within this course will be at the discretion of the instructor, under the supervision of the department head.

Department of Chemistry

Professors: Jumper, Ballentine, May
Associate Professors: Browning
Assistant Professors: Rushing, Braun, Dixon, Brewer

The course of study for students majoring in chemistry is designed to prepare them to enroll as graduate students in full standing at leading universities; to provide the foundation for pursuing careers in medicine, dentistry, and other professions; and to fill positions as chemists in industrial laboratories.

The courses of study embody training in the four fundamental subdivisions of the science: inorganic, organic, analytical, and physical chemistry.

The department occupies Byrd Hall, which was completed in 1968. Within its 52,000 square feet, this facility houses a lecture theater; laboratories; a centrally located library; and conveniently located stockrooms, preparation rooms, and balance rooms.

A chapter of Student Affiliates of the American Chemical Society is active at The Citadel. The Department of Chemistry is accredited by the American Chemical Society.

B.S. Chemistry Major

Students majoring in the B.S. Chemistry program are required to take all of the courses offered by the department for chemistry majors and also 30-131 (Analytic Geometry and Calculus I), 30-132 (Analytic Geometry and Calculus II), 30-231 (Analytic Geometry and Calculus III), and 30-232 (Differential Equations); two years (four semesters) of a modern language; and 26-210/260, 26-211/261, and 26-212/262 (Physics for Engineers and Physical Scientists).

B.A. Chemistry Major

The B.A. Chemistry course of study permits many elective courses and provides great flexibility to the student to select courses which will provide him with the particular education suited to his needs. The candidate must take 41 hours in chemistry, namely, 40-101, 40-102, 40-111, 40-112, 40-201, 40-207, 40-208, 40-217, 40-218, 40-300, 40-302, 40-305, 40-306, 40-308, 40-429, 40-430, and two chemistry electives; 15 credits in English, namely, 80-101, 80-102, 80-201, 80-202, and 80-411; 8 credits in physics, namely, 26-205/255 and 26-206/256, 30-106 and 30-107 (College Mathematics II & III); 70-101 and 70-102 (A Survey of American History); 12 credits in a modern language; 5 approved electives; and 5 elective courses.

Premedical Program

Students who plan to enter medical school or allied professional schools such as dental school or veterinary medical school should consider the B.A. Chemistry program and choose such electives as 47-302 (Comparative Anatomy) and 47-401 (Embryology). It is also strongly recommended that they take, if possible, 51-201 (General Psychology), 51-304 (Abnormal Psychology), 47-308 (Genetics), 47-402 (Descriptive Histology), and 47-403 (Animal Physiology). Students who plan to enter medical school upon completion of their baccalaureate degrees should acquaint themselves with the requirements of the medical schools of their choice and tailor their programs accordingly. An extremely worthwhile reference to the entrance requirements for all medical schools in the United States and Canada is *Medical School Admission Requirements* published each year by the Association of American Medical Colleges, One DuPont Circle, N.W., Washington, D.C. 20036.

All students who plan to attend medical school not only must complete certain prescribed work but also must show an aptitude for medical studies. The Medical College Admissions Test, prepared by the Association of American Medical Colleges, must be taken by all students who expect to apply for admission to a medical college.

In addition to students wishing to pursue higher education in medicine, dentistry, or veterinary medicine, those students wishing to pursue a career in secondary school chemistry teaching or other areas such as chemical sales which use a background of chemical training should take the B.A. Chemistry program.

Requirements for Non-Science Students

Students majoring in an area other than a science may take chemistry to fulfill their science requirement; in this case, they must complete a four-course set, either 40-101/111 and 40-102/112 or 40-103/113 and 40-104/114.

40-101. *General Chemistry* Three Credit Hours

Corequisite or Prerequisite: 40-111.

Required of all freshmen majoring in the sciences, engineering, or elective to others.

Theoretical and descriptive chemistry, including the elements of modern chemical theory and discussion of some of the more common industrial processes. Slide rules or electronic calculators with logarithmic capability are required.

Lectures and recitations: three hours a week.

40-102. *General Chemistry* Three Credit Hours

Prerequisites: 40-101 and 40-111.

Corequisite or Prerequisite: 40-112.

Required of all freshmen majoring in mathematics, civil engineering, or the sciences; elective to others.

A continuation of 40-101 with emphasis on the theoretical aspects of chemistry and discussion of some of the more common industrial processes. Slide rules or electronic calculators with logarithmic capability are required.

Lectures and recitations: three hours a week.

40-103. *Introduction to Chemistry* Three Credit Hours

Corequisite or Prerequisite: 40-113.

Elective for non-science majors only.

The first semester of a terminal course designed for students who do not expect to take any other course in chemistry. The course will cover the essentials of chemistry on a less mathematical level than 40-101. Chemical processes of products used in everyday life will be stressed.

Lecture: three hours a week.

40-104. *Introduction to Chemistry* Three Credit Hours

Prerequisites: 40-103 and 40-113.

Corequisite or Prerequisite: 40-114.

Elective for non-science majors only.

The concluding semester of a terminal course in chemistry designed for students who do not expect to take any other course in chemistry.

Among the topics to be covered will be the relationship of chemistry to ecology, the uses and abuses of drugs, the role of chemistry in modern manufacturing processes.

Lecture: three hours a week.

40-106. *Principles of Chemistry* Three Credit Hours

Prerequisites: 40-101 and 40-111.

For electrical engineering majors only.

A continuation of 40-101, but restricted to electrical engineering majors only, with emphasis on the theoretical aspects of chemistry and discussion of some of the more common industrial processes. Electronic calculators with logarithmic capability are required.

Lectures and recitations: three hours a week.

40-111. *General Chemistry Laboratory* One Credit Hour

Prerequisite or Corequisite: 40-101.

Required of all freshmen majoring in the sciences, engineering, or mathematics; elective to others.

This laboratory course closely parallels the lecture material in 40-101. Emphasis will be placed on quantitative experiments showing the stoichiometric relationships in chemical reactions.

Laboratory: two hours a week.

40-112. *General Chemistry Laboratory* One Credit Hour

Prerequisites: 40-101 and 40-111.

Corequisite or Prerequisite: 40-102.

Required of all freshmen majoring in the sciences, civil engineering, or mathematics.

Fundamental techniques in qualitative and quantitative analysis.

Laboratory: two hours a week.

40-113. *Introduction to Chemistry Laboratory* One Credit Hour

Prerequisite or Corequisite: 40-103.

Elective to non-science majors only.

An introduction to laboratory work. Experiments will parallel, as closely as possible, the material covered in 40-103. Emphasis will be placed on basic laboratory techniques. Demonstrations will be used to illustrate important chemical concepts.

Laboratory: two hours a week.

40-114. *Introduction to Chemical Laboratory* One Credit Hour

Prerequisites: 40-103 and 40-113.

Corequisite or Prerequisite: 40-104.

Elective to non-science majors only.

A continuation of 40-113. Experiments and demonstrations will parallel, as closely as possible, the material covered in 40-104.

Laboratory: two hours a week.

40-201. *Ionic Equilibria in Aqueous Solutions* Three Credit Hours

Prerequisites: 40-102 and 40-112.

Required of all chemistry majors.

This course provides a thorough coverage of the principles of the concentration equilibria which exists in aqueous solutions of soluble, but weak, electrolytes, slightly soluble electrolytes, and complex (Werner) ons. The laboratory work utilizes the qualitative analysis of those norganic cation groups which effectively demonstrate the equilibrium principles covered in lecture.

Lectures: two hours a week; laboratory: two hours a week.

40-207. *Organic Chemistry* Three Credit Hours

Prerequisites: 40-102 and 40-112.

Corequisite or Prerequisite: 40-217.

Required of all sophomores majoring in chemistry.

A study of the aliphatic and aromatic series of hydrocarbons and their derivatives with emphasis on reaction mechanisms and interconversions among the various classes of compounds.

Lecture: three hours a week.

40-208. *Organic Chemistry* Three Credit Hours

Prerequisites: 40-207 and 40-217.

Corequisite or Prerequisite: 40-218.

A continuation of 40-207.

Lecture: three hours a week.

40-217. *Organic Chemistry Laboratory* One Credit

Corequisite or Prerequisite: 40-207.

A course which emphasizes the development of skill in the use of basic aboratory techniques through the completion of a series of experiments nvolving various types of reactions such as substitution, elimination, and addition reaction with an introduction to modern instrumentation such as the IR spectrophotometer, gas chromatograph, and NMR spectrometer.

Laboratory: three hours a week.

40-218. *Organic Chemistry Laboratory* One Credit Hour

Prerequisites: 40-207 and 40-217.

Corequisite or Prerequisite: 40-208.

A continuation of 40-217 with the emphasis on the synthesis, reactions, and identification of the various classes of organic compounds.

Laboratory: three hours a week.

40-300. *Quantitative Analysis* Four Credit Hours

Prerequisites: 40-201, 30-107 or equivalents, or permission of the department head.

Required of all juniors majoring in chemistry; elective to others.

Emphasis is placed on the chemical principles involved in titrimetry and gravimetry—the classical methods of quantitative analysis. In addition, some modern methods such as direct potentiometry, visible spectrophotometry, and the use of ion-exchange resins are discussed. Laboratory includes practice in titrimetry, gravimetry, potentiometry, visible spectrophotometry, and column chromatography.

Lecture: two hours a week; laboratory: three hours a week; recitation: one hour a week.

40-302. *Instrumental Methods* Four Credit Hours

Prerequisites: 40-300 and 40-305, or permission of the department head.

Corequisite: 40-306.

Required of all juniors majoring in chemistry; elective to others.

Modern instrumental methods of analysis are discussed, with emphasis on the physical or chemical principles involved in the method, design of analytical instruments, and treatment of analytical data. Laboratory work provides practice in the three major areas of instrumental analysis—chromatography, electrochemistry, and spectroscopy.

Lecture: two hours a week; laboratory: four hours a week.

40-305 and 40-306. *Physical Chemistry* Three Credit Hours Each Semester

Prerequisites: 30-132 or 30-107 and 26-211/261 or 26-206/256.

Corequisite: 40-300.

Required of all juniors majoring in chemistry; elective to others.

A study of the properties of solids, liquids, and gases, and of their relation to chemical constitution.

Lecture: three hours a week.

40-308. *Chemical Literature* One Credit Hour

Required of all chemistry majors; elective to others.

An introduction to the effective use of the chemical research literature with emphasis on the primary, secondary and tertiary sources.

Lecture: one hour a week.

40-309. *Special Topics in Analytical Chemistry* Three Credit Hours

Prerequisites: 40-300 and 26-206/256 or 26-211/261.

Corequisite or Prerequisite: 40-302.

An elective course designed to familiarize students with the entire field f analytical chemistry with emphasis on modern methods of analysis.

Lecture: three hours a week.

40-310. *Survey of Nuclear Science* Three Credit Hours

Prerequisites: 50-300, 30-106, and 30-107 or equivalents, 26-206/256 r equivalent, or permission of the department head.

Elective course; not open to physics majors.

A survey of the field of nuclear science particularly as applied to hemistry.

Lecture: three hours a week.

40-312. *Chemical Bonding and Structure* Three Credit Hours

Prerequisites: 40-102, 40-112, 30-106, and 30-107.

Not open to B.S. Chemistry majors; elective to others.

A one-semester course designed to introduce the student qualitatively) the modern thoughts concerning the basic theories and rules governing hemical bonding and molecular structure. A simplified discussion of onding in the simple organic and inorganic compounds as well as some omplex inorganic ions.

Lecture: three hours a week.

0-315 and 40-316. *Physical Chemistry Laboratory* One Credit Hour
Each Semester

Prerequisite: 30-232 or 30-234.

Corequisites or Prerequisites: 40-305 and 40-306.

Required of all juniors majoring in B.S. Chemistry; elective to others.

This laboratory course is closely correlated with the lecture work in 40-05 and 40-306. It is designed to provide an instruction of the basic boratory methods of Physical Chemistry, and to illustrate principles of hermodynamics, equilibrium, and kinetics.

Laboratory: three hours a week.

)-401 and 40-402. *Inorganic Chemistry* Three Credit Hours
Each Semester

Prerequisites: 40-207 and 40-306.

Required of all seniors majoring in B.S. Chemistry; elective to others.

A study of the principles and reactions of inorganic chemistry; atomic theory, chemical bonds, periodic system, acid-base theories, complex ions, and organo-metallic compounds.

Lecture: three hours a week.

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*Offered when demand warrants

40-403. *Special Topics in Organic Chemistry* Three Credit Hours

Prerequisites: 40-207, 40-208, 40-217, and 40-218.

Required of B.S. Chemistry majors; elective to others.

A study of certain topics not covered in the introductory course including carbohydrates, amino acids, peptides and proteins, terpenes, heterocylic compounds, and some sterols and steroids, nuclear magnetic resonance spectroscopy, and mass spectra.

Lecture: three hours a week.

40-404. *Advanced Topics in Organic Chemistry* Three Credit Hours

Prerequisites: 40-207, 40-208, 40-217, and 40-218.

Elective course.

Pericyclic reactions, photochemistry, ultraviolet and infrared spectroscopy, and such classical topics as dicarboxylic acids, hydroxy acids, keto acids, and polynuclear hydrocarbons.

Lecture: three hours a week.

40-408. *Qualitative Organic Anlysis* Four Credit Hours

Prerequisites: 40-207, 40-208, 40-217, and 40-218.

Required of all seniors majoring in B.S. Chemistry; elective to others.

The classification, the study of type reactions, and the identification of pure organic compounds and mixtures of organic compounds.

Lecture: one hour a week; laboratory: six hours a week.

40-409. *Biochemistry* Three Credit Hours

Prerequisites: 40-207, 40-208, 40-217, and 40-218.

Elective course.

An overview of the entire field of biochemistry covering amino acids and proteins, enzymes and coenzymes, lipids, nucleic acid structure, vitamins and minerals, nutrition, and blood and body fluids.

Lecture: three hours a week.

40-111. *Physical Chemistry Topics* Three Credit Hours

Prerequisites: 40-207, 40-217, and 40-306.

Required of all seniors majoring in B.S. Chemistry.

Further exploration of problems and theory of physical chemistry in areas not fully treated in 40-305 and 40-306.

Lecture: three hours a week.

40-412. *Inorganic Preparations* One Credit Hour

Prerequisites: 40-302 and 40-305.

Required of all seniors majoring in B.S. Chemistry.

Techniques employed in several widely different inorganic syntheses.

Laboratory: three hours a week.

40-414. *Chemical Aspects of Industrial Waste Treatment* Three Credit Hours

Prerequisites: junior or senior standing in sciences/engineering or permission of instructor.

Elective course.

Introduction to the sources and effects of water pollution; stream and plant surveys; sampling and analytical procedures; principles and applications of physical, chemical, and biological processes used in reducing or eliminating industrial water pollution.

Lecture: three hours a week.

40-419. *Senior Research* Two Credit Hours

Required of all B.S. Chemistry majors; elective to others with permission of the department head.

An introduction to research, including the library search on a topic of the student's choosing. A written report will be required. All work will be supervised by two members of the Chemistry Department faculty.

40-420. *Senior Research Project* One Credit Hour

Required of all B.S. Chemistry majors; elective to others with permission of the department head.

A laboratory research project and accompanying report on an approved topic of the student's choosing. All work will be supervised by two members of the Chemistry Department faculty.

40-429. *Senior Seminar* One Credit Hour

Required of all senior chemistry majors.

A group study of current topics of chemical interest. Senior chemistry majors will present topics of their choice to the Chemistry Department faculty and other chemistry majors.

40-430. *Senior Seminar* Zero Credit Hours

Required of all senior chemistry majors.

A continuation of 40-429.

Geology

The geology division operates within the administration of the Chemistry Department to offer electives to upperclassmen and a somewhat modified elementary geology course, 45-303, for juniors in civil engineering.

Geological investigations and the subject matter of geology cover many fields directly related to the understanding of the physical earth and universe, the biological earth, and the economics of societies. Facilities are available within the Chemistry Department at The Citadel for student research in geochemistry at the senior level.

45-201. *Introduction to Earth Science I* Four Credit Hours

Elective to upperclassmen.

A study of the materials and processes of the earth including minerals and rocks, weathering and soils, mass wasting, surface and ground water, glaciers, deserts, earthquakes, plate tectonics, volcanoes, crustal deformation and mountain building, geochronology, fossils, and geologic history of the earth.

Lecture: three hours a week; laboratory: two hours a week.

45-202. *Introduction to Earth Science II* Four Credit Hours

Prerequisite: 45-201 or 45-303 or permission of the instructor.

Elective to upperclassmen.

A study of oceans, continental margins, sediments, currents, tides, waves, shoreline features; weather and climate, atmospheric moisture, pressure and wind, hurricanes and tornadoes, air pollution, weather modification; astronomy, earth/moon relations, solar systems, stellar properties and the origin of the universe.

Lecture: three hours a week; laboratory: two hours a week.

45-303. *Geology for Engineers* Three Credit Hours

Required of and limited to juniors in civil engineering.

Minerals and rocks; structural geology; surface and ground water; other processes which shape the surface of the earth and their influence on engineering practice; earthquakes; geophysical exploration; geologic maps.

Lecture: two hours a week; laboratory: two hours a week.

45-304. *Marine Geology* Three Credit Hours

Prerequisite: permission of the instructor.

Not to be substituted for 45-202.

Elective to upperclassmen.

Techniques of physical oceanography; shapes and evolution of ocean basins and floors; variations in properties of sea water; waves; tides; currents; beach erosion; estuaries; sedimentation; changes in sea level.

Lecture: three hours a week (spring semester—odd numbered years).

45-308. *Environmental Geology* Three Credit Hours

Prerequisite: none (45-201 or 45-303 is recommended).

Not to be substituted for 45-202.

Elective to upperclassmen.

A study of the relationship between man and his geologic environment ncluding such topics as hurricanes, floods, water and air pollution, energy and mineral resources, volcanic activity, and earthquakes.

Lecture: three hours a week.

Department of Civil Engineering

Professor: Evans, Lindbergh
Associate Professor: Dion
Assistant Professors: Stout, Woo, Castedo-Franco, Brannan
Colonel Louis S. LeTellier Distinguished Visiting Professor: Saxe

The Civil Engineering Department's objective is to provide the basic educational requirements of the profession of civil engineering, to prepare students to pursue advanced work in graduate schools of engineering, and to insure an educational background broad enough to meet the requirements of good citizenship and service in other fields requiring leadership and problem-solving ability.

The four-year program begins with courses which provide a foundation of knowledge and skill in the basic arts and sciences. Limited specialization in engineering starts during the sophomore year. In the junior and senior years, the time is devoted essentially to basic professional subjects. Throughout the four years, the program emphasizes the development of habits of orderly study, investigation, sound reasoning, and problem-solving, rather than the mere acquisition of factual information. It is stressed that an engineer is a professional thoroughly grounded in engineering science and technology but also alive to the social, economic, ethical, and ecological implications of his professional activities.

Students must have achieved a sufficient cumulative grade-point ratio for continuation without probation prior to enrolling in upper level courses offered by the Civil Engineering Department (i.e. junior and senior level classes). This requires minimum cumulative grade-point ratios of 1.70 and 1.90 respectively to enroll in junior and senior level courses offered by the Civil Engineering Department.

The civil engineering curriculum is professionally accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

Each year the curriculum is augmented by off-campus educators and engineers who lecture and moderate seminars in engineering specialties. Students' sources of knowledge are broadened by participation in these seminars and the student chapters of the American Society of Civil Engineers, Tau Beta Pi (honorary engineering society), Sigma Iota Delta (honorary civil engineering society), and the Society of American Military Engineers.

LeTellier Hall, the main engineering building, is newly renovated. It was specially designed for the needs of civil engineering education and contains, in addition to laboratories and classrooms, the John Anderson Memorial Library (containing engineering technical works, periodicals, and reference materials), an assembly room with appropriate audiovisual aids for special lectures and society meetings, well-equipped and well-lighted drafting rooms, and a computer center equipped with twenty-four work stations, VAX 11/750, and three CRT terminals through which the main frame computer at the University of South Carolina is accessed. In addition, 17 microcomputers are available throughout the department.

Concrete laboratory: A curing room, mixing equipment, air entraining measuring apparatus, scales, and other minor equipment are provided in this laboratory. Testing is done with materials laboratory machines.

Materials testing laboratory: Major items of equipment include: a 400,000-pound universal hydraulic testing machine with a clearance of 8 feet for column testing and with a 36-inch-wide working platform; a 60,000-pound hydraulic universal testing machine with automatic stress-strain recorder; a 10,000-inch-pound torsion machine; and equipment for making tension, compression, hardness, fatigue, shearing, cold bend, sonic, and most other accepted and significant tests on metals, concrete, wood, and other structural materials.

Bituminous materials testing laboratory: Contains equipment for making the significant quality control and identification tests on asphalt cements, cutback asphalts, asphalt emulsions, and road tars. Equipment for the design, mixing, compaction, and testing of asphaltic concrete paving mixtures by the Marshall and other methods is included.

Geotechnical laboratories: The two soils laboratories are equipped with both scale and deadweight consolidometers, triaxial and direct shear machines, unconfined compression machines, permeameters, Atterberg limit equipment, Proctor and modified AASHTO compaction apparatus, standard sieves, soil hydrometers, C.B.R. apparatus, and other equipment needed for tests and experiments with soils.

Fluid mechanics laboratory: Equipment is provided for a wide variety of experiments and tests involving the flow of water through pipes, meters, orifices, over weirs, and through a Parshall flume. Other major items of equipment include a head loss and flow measurement fluid circuit apparatus, a Reynolds number device, a hydraulic demonstration unit permitting experiments involving many phenomena of open channel flow, and a centrifugal pump equipped to measure input and output of energy.

Environmental engineering laboratory: Equipment is provided for water analysis determinations (primarily according to "Standard Methods") of pH, alkalinity, hardness, turbidity, and color, as well as for determinations of special channel radical and bacteriological examinations. For wastewater analysis, biochemical oxygen demand and solids content may be determined. The equipment includes incubators, muffle furnace, pH meters, demineralizer, electrophotometric devices, autoclave, constant temperature refrigerator, drying oven, water still, and essential minor tools and equipment.

Other engineering equipment: Adequate equipment is available for the courses in graphic science, surveying, photogrammetry, as well as for the junior and senior courses. This equipment includes drafting machines, planimeters, rectoplanograph, sterocomparagraphs, steroscope radial plotters, mechanical triangular set, pocket steroscopes, height finders, and adequate steroscopic aerial photographs. Transits, levels, and a variety of theodolites, plane tables, compasses, sextants, level and stadia rods, chains, tapes and electronic distance measuring devices are used in the surveying course. A computer aided drafting system with drum plotter and associated software is available for student use.

Degree: The degree of Bachelor of Science in Civil Engineering (B.S. in C.E.) is awarded to those who successfully complete the program of studies outlined in the course offerings section of this catalogue.

Three nontechnical and one technical electives are required. These are selected from a list of approved electives maintained by the Civil Engineering Department. In completing the three nontechnical electives, the student will take a two-course sequence in at least one area of the humanities or social sciences. The sequence will include one course at an advanced level.

Cooperative engineering graduate study opportunity: Under cooperative arrangements between The Citadel and Clemson University, qualified cadets may take a graduate-level course during their last semester. This course is administered for Clemson University by The Citadel and may be applied toward Clemson's master of science degree in civil engineering. Participating cadets must complete all requirements of The Citadel's civil engineering undergraduate major in addition to this graduate course.

10-101 and 10-102. *Graphic Science* Two Credit Hours Each Semester

Required of all civil engineering freshmen.

Use and care of drawing instruments; proper weights and types of lines for clear-cut, and complete graphical representation; useful geometrical construction; freehand sketching, orthographic projection; auxiliary and sectional views; pictorial representation with emphasis on isometric drawing; dimensioning; true lengths and shapes; problems on points, lines, and planes to be solved by the method of auxiliary planes in third angle projection; and drawing related to typical civil engineering problems. Problems are selected with a view to emphasizing practical applications and developing the ability of the students to think in three dimensions. Development of reasonable skill in lettering. Supplemented with seminars by CE faculty members covering work of practicing engineers. An introduction to the computer center and equipment use are also provided.

Laboratory: four hours.

10-202. *Statics* Three Credit Hours

Prerequisites: 30-132 (Analytic Geometry and Calculus II), 26-210/260 (Physics for Engineers and Physical Scientists), and 10-102 or concurrent with 10-102.

Required of all civil engineering sophomores.

Scalar and vector solutions of problems in statics; principles of statics; resultants, reactions, and equilibrium of forces; analysis of simple trusses, friction; centroids and centers of gravity; and moments of inertia.

Lecture: two hours; laboratory: two hours.

10-204. *Photogrammetry* One Credit Hour

Prerequisite: 10-206 or concurrent with 10-206.

Required of all civil engineering sophomores.

An elementary course in aerial photography and topographic mapping; methods of topographic projections; planning topographic flights; basic photo-interpretation; geometric properties of photographs; radial line plotting; photographic measurements. An introduction to remote sensing is also provided.

Laboratory: two hours.

10-205 and 10-206. *Surveying* Four Credit Hours Each Semester

Prerequisites: For 10-205: 10-101. For 10-206: 10-205.

Required of all civil engineering sophomores.

Linear measurements; leveling; compass and transit; theory of errors; land surveying and boundary laws; latitudes and departures; areas and volumes; stadia; plane table; route surveys; vertical, circular, and transition curves; State plane coordinates; standard map projections; Polaris and solar observations; introduction to the use of electronic distance measuring devices and electronic computers in the solution of problems related to surveying and other fields of civil engineering. A solar or Polaris observation is required during the 10-206 semester. Computer aided drafting is available.

Lecture: three hours. Field two hours in addition to the required Plaris observation.

10-209. *Computer Application for Civil Engineering* One Credit Hour

Instruction in digital computer language and systems using problems chosen from civil engineering fields and fields clearly related thereto.

When authorized by the department head, 36-207 may be substituted for this course.

Lecture: one hour; laboratory: one hour.

10-301. *Dynamics* Three Credit Hours

Prerequisites: 10-202 with a grade of "C" or better and 10-209.

Required of all civil engineering juniors.

Kinematics and Kinetics of particles of rigid bodies in plane motion with emphasis on the special cases of translation and rotation. The techniques of vector mathematics are employed.

Lecture: two hours.

10-303. *Mechanics of Materials* Four Credit Hours

Prerequisites: 10-202 with a grade of "C" or better and 10-209.

Required of all civil engineering juniors.

Elastic properties of structural materials; internal stresses and strains; principal stresses and stains including Mohr's Circle; axial; torsion; flexure; shear; riveted and bolted joints; combined stresses; shear and moment diagrams; beam deflections; computer applications; supplemented by 10-307, taken concurrently or subsequently to 10-303.

Lecture: three hours; laboratory: two hours.

10-305. *Transportation Engineering* Three Credit Hours

Prerequisite: 10-206.

Required of all civil engineering juniors.

Development and interrelationships of United States transportation systems; current problems and tranportation projects; planning, financing, and design of land transportation, airport, and seaport facilities. Includes: road and railroad geometric and drainage design; airport layout and design; and design of harbors and port facilities. Problems are solved by both manual and computer methods.

Lecture: three hours.

10-306. *Highway Engineering* Three Credit Hours

Prerequisite: 10-305.

Required of all civil engineering juniors.

Alignment and earthwork drawings and computations; earthwork operations; routine tests of highway materials, bituminous and non-bituminous; pavement and basic thickness design; design and testing of asphalt paving mixtures; construction of roadway elements; construction surveys. Computer technology is employed in solving design problems.

Lecture: two hours; laboratory: two hours.

10-307. *Materials Laboratory* One Credit Hour

Prerequisite or corequisite: 10-303.

Required of all civil engineering juniors.

Laboratory supplement to 10-303. Introduction to the use of testing machines and equipment; strength and deformation measurements of ferrous and non-ferrous metals, concrete, and wood; properties of materials as determined by results of tests in compression, tension, bending, torsion; behavior of columns; use of electric resistance strain gages; Rockwell and Brinell hardness tests; use of ASTM specifications and test procedures.

Laboratory: three hours.

10-308. *Structural Analysis I* Three Credit Hours

Prerequisites: 10-303 with a grade of "C" or better, 30-231 (Analytic Geometry and Calculus III), and 30-234 (Applied Mathematics I).

Required of all civil engineering juniors.

Analysis of simple structures; reactions; shear and moment for static and moving loads on beams; stresses in members of truss structures; force systems in space frames; influence line diagrams; plastic theory; and deflections of beams, frames, and trusses.

Lecture: three hours.

10-314. *Engineering Administration* Two Credit Hours

Required of all civil engineering juniors.

An elementary course in engineering administration with primary attention given to the basic principles of engineering economy as applied to the economic analysis of the costs of construction and operation of various engineering works. Computer applications in cost analysis. In addition, the course covers engineering ethics as applied by practicing engineers.

Lecture: two hours.

10-315. *Fluid Mechanics* Three Credit Hours

Prerequisite: 10-301.

Required of all civil engineering juniors.

An introduction to fluid characteristics, properties, and the fundamentals of fluid statics, fluid dynamics, fluid flow, and fluid measurements. Hydraulics, a practical application of fluid mechanics involving the flow of water, investigates the properties of orifices, weirs, flumes, pipes, and open channels, including their engineering applications. Classroom assignments will include design problems and problem solving using computers.

Lecture: three hours.

10-401. *Concrete Laboratory* One Credit Hour

Prerequisites: 10-307 and 30-234 (Applied Mathematics I).

Required of all civil engineering seniors.

Design, preparation, and testing of portland cement concrete mixes for a desired quality of concrete using both plain portland cement concrete and concretes containing the various commonly used mixtures; test specimens cured under controlled temperatures and moisture conditions; close attention given to the influence of the quality and grading of the aggregates and to other features affecting the properties of the concrete ultimately forming a structure; study and discussion of specifications governing good construction practice in handling and placing aggregates and concrete; and the control inspection of same. Specific emphasis is placed on professional laboratory report format and presentation.

Laboratory: two hours.

10-402. *Geotechnical Engineering Laboratory* One Credit Hour

Prerequisites: 10-409; 10-410 to be taken concurrently.

Required of all civil engineering seniors.

Classification and soil strength tests to predict stability of soil for use in earth dams, roads, and foundations. Specific gravity, combined mechanical analysis, Atterberg limits, permeability, compaction, unconfined compression, consolidation, triaxial, direct shear, relative density, and C.B.R.

tests; C.B.R. tests; field tests to consist of field density tests, soil borings, and load tests.

Laboratory: two hours.

10-403 and 10-404. *Reinforced Concrete Design* Three Credit Hours

Prerequisite: 10-308.

Required of all civil engineering seniors.

Design of reinforced concrete structures using strength design theory. Design of beams, columns, combined stress members, footings, and retaining walls. Introduction to prestressed concrete. Comphrehensive analysis and design of a building frame and foundation system. Special attention is given to the use of current specifications for design and construction. The use of computer programs to facilitate analysis and design during the comprehensive problem is encouraged.

Lecture: three hours.

10-405. *Structural Analysis II* Three Credit Hours

Prerequisite: 10-308.

Required of all civil engineering seniors.

Theory of statically indeterminate structures, using methods of work, three-moment theorem, slope deflection, moment distribution; model analysis using Beggs Deformeter-Matrix Methods; and multi-story building frame analysis using computer programs.

Lecture: two hours; laboratory: two hours.

10-406. *Steel Design* Three Credit Hours

Prerequisite: 10-405.

Required of all civil engineering seniors.

Theory and design of steel structures, including elastic and plastic design concepts. Design of tension and compression members; beams; beam columns; welded plate girders; trusses; mill buildings-composite design. Computer solutions are utilized for design shears, moments, and axial loads.

Lecture: two hours; laboratory: two hours.

10-408. *Environmental Engineering* Three Credit Hours

Prerequisite: 10-315.

Required of all civil engineering seniors.

Introduction to concepts involving hydrology, groundwater, and stream flow with respect to controlled drainage and water supply. Methods of water treatment, wastewater treatment, and sludge handling, treatment and disposal will be introduced with emphasis on design concepts. An introduction to solid waste processing and disposal and air pollution technology will be provided. Classroom assignments will include design and problem solution using computers.

Lecture: three hours.

10-409. *Introduction to Geotechnical Engineering* Three Credit Hours

Prerequisites: 10-303, 10-306, 10-315, 30-234, and 45-303.

This course introduces the student to the rudiments of theoretical soil mechanics, groundwater flow, stress in soils. Topics covered include formation of soils, phase relationships, classification, consolidation, and stress at depth. The shear strength of soils is considered last. Outside reading is encouraged to acquaint the student with geotechnical terminology and research.

Lecture: three hours.

10-410. *Geotechnical Engineering II* Three Credit Hours

A first course in geotechnical design. Topics include compaction theory and practice, lateral earth pressure for cohesive and cohesionless soils, braced excavation, heave in cuts, and liquefaction. Shallow and deep foundation design theory and application. Bearing capacity factors. Slope stability analyses. Subsurface investigation philosophy and techniques. The last lectures are devoted to special topics.

Lecture: three hours.

10-418. *Fluid Mechanics Laboratory* One Credit Hour

Prerequisite: 10-315.

Accomplishment of laboratory exercises and experiments to illustrate basic concepts of fluid mechanics and to validate empirical formulas used in hydraulic computations. Principal emphasis is on the phenomena associated with closed conduit and open channel flow of water, measurement of velocities, and flow rates and operational characteristics of pumps.

A minimum of one experiment will involve the use of the computers to evaluate laboratory data.

Laboratory: two hours.

10-419. *Environmental Engineering Laboratory* One Credit Hour

Prerequisite: 10-408.

Accomplishment of chemical and microbiological determinations used in the examination of water and wastewater. Laboratory analysis to evaluate water quality will be performed including biochemical oxygen demand, suspended solids, settleable solids, volatile solids, pH, turbidity, color, alkalinity, acidity, hardness, and fecal and total coliform.

Laboratory experiments to investigate the water treatment and processes of coagulation and flocculation, sedimentation, filtration, and disinfection will be performed.

A minimum of one laboratory experiment will involve the use of the computer to evaluate laboratory data.

Laboratory: two hours.

10-420. *Senior Research Project* Two Credit Hours

Required of all civil engineering seniors as a prerequisite to graduation.

Civil Engineering Electives

The following courses are offered on demand. They constitute part of a ist of courses (including courses offered by other departments) which are approved by the head of the Department of Civil Engineering as atisfying the requirement that each civil engineering major complete a hree-credit-hour technical elective.

0-411. *Engineering Management* Three Credit Hours

Prerequisite: completion of all freshman, sophomore, and junior courses required for civil engineering majors, or approval of department head.

Technique of engineering planning and management using the critical path method. Both computer and noncomputer approaches are used. Relationships between owners, A-E's and contractors are covered with mphasis on proper ethics and professional conduct by the engineer.

Lecture: three hours.

0-421. *Subdivision Planning and Design* Three Credit Hours

Prerequisites: 10-102, 10-306, and 10-408. 10-408 may be taken oncurrently.

The elements of planning a subdivision including an introduction to and planning, zoning, and subdivision requirements and review proedures; site development including the integrated design of roadways, torm drainage collection/retention/detention systems, sanitary sewer ollection and transportation systems (pumping stations and force mains), portable water systems, and construction specifications; and economic nalysis with individual student participation in preliminary development of single family, multi-family, and mobile home projects on 20- to 25-acre racts of land.

Lecture: two hours; laboratory: two hours.

Department of Education

Professors: Magoulas, Mahan, Rhett, Templeton, Clees, Shelton, McWhirt
Associate Professors: Williams, Wallace, Ouzts
Assistant Professors: Elksnin, Orton

Teacher education at The Citadel is dedicated to the development of teachers for the public schools of the state and nation. Teacher education programs at The Citadel are in the area of secondary education with teaching fields of Social Studies, History, Science, Biology, General Science, and English. In addition, a program for K-12 certification in the field of Physical Education is available.

Students are admitted to teacher education after showing that they possess the potential for personal and academic success. Criteria utilized in the process of admitting students to major in teacher education include past academic achievement, results of national tests, interviews, and successful completion of a basic skills test administered by the State of South Carolina. No student can obtain full admission to the teacher education program until a passing score on the Education Entrance Examination (EEE) has been made. The Education Entrance Examination is a test of basic skills in writing, reading, and mathematics. A student may be admitted for one year pending completion of the EEE. If a student fails the test, he is afforded a maximum of two additional times to pass the EEE. No student may continue longer than one year in a teacher education program without successful completion of this test.

Admission into a teacher education program and admission into Internship in Teaching (50-400 and 59-400) are carefully monitored by the Director of Teacher Education (head of the Department of Education) and the Committee on Admissions and Retention in Teacher Education.

Initial Admission

A. Incoming fourth class students will be admitted subject to the successful completion of the IEEE.

B. All students who wish transfer from another major must present to the Director of Teacher Education the following documents:

   1. completed Change of Major Form (available from the Office of the Registrar);
   2. completed application for admission to a teacher education program (available from the Office of the Director of Teacher Education);
   3. current transcript of academic work at The Citadel.

The Committee on Admissions and Retention in Teacher Education will review these materials and will schedule an interview with the applicant. The candidate must present evidence of academic proficiency as follows:

   1. Thirdclassmen and secondclassmen are eligible for admission if the GPR is 2.0 or higher and are eligible for probationary admission if free from probation.
   2. Firstclassmen are not ordinarily admitted unless the previous academic program has been such that graduation can be assured within an additional two semesters beyond the basic eight. Candidates must present a GPR of 2.0 or higher.
   3. Exceptions to these standards may be made if extentuating circumstances justify them to the Committee on Admission and Retention in Teacher Education.

Admission to the Internship in Teaching (50-400, 59-400)

A. Students will be required to make formal application for admission to Internship in Teaching six weeks prior to the beginning of the term in which it will be done. This application will be reviewed by the Committee on Admission and Retention in Teacher Education.

B. These conditions *must* be met:

   1. The EEE must have been completed successfully.
   2. All professional education courses must have been completed, and a GPR of 2.5 must have been maintained in these courses.
   3. A GPR of 2.0 must have been earned in the teaching field, and a minimum of 20 hours in the field must have be completed.

4. All freshman and sophomore required courses must be completed.
5. Success in previous field experiences must have been demonstrated.

Teacher preparation programs are subject to legislative changes.

The following are objectives that guide the planning and practices of the teacher education faculty:

1. to enable the students to develop scholarship and mastery of a body of knowledge in the selected teaching specialty;
2. to enable the student to become aware of the emotional and psychological needs which he brings to the classroom, his feelings about being in the role of teacher, and the value orientation which he expresses in his behavior as a teacher;
3. to enable the student to develop skills in critical thinking, to make reasoned judgments about controversial issues, and to pursue a disciplined method of inquiry;
4. to enable the student to develop an awareness of the emotional and psychological needs of students, the differing reactions of pupils to their teachers, and the needs for differential responses to each student;
5. to enable the student to evaluate a variety of strategies for teaching and learning, to experience these strategies, and to develop from among them a personal style which fits his own objectives;
6. to enable the student to develop an awareness and understanding of the school in relation to the political and social system and to evaluate his objectives in the light of his relationship;
7. to create in the student an awareness of the school as the transmitter of the dominant values of the society and the implication of this in regard to community expectations about the role of the teacher.

Following is a summary of the three areas in which courses will be studied as prescribed and which serve as a framework within which each student will develop a program of study consistent with his individual needs as a future teacher.

Education Curriculum

Area A: Common Learnings

English: 80-101, 80-102, 80-201, and 80-202	12 semester hours
*Mathematics: 30-105 and 30-106	6 semester hours

Sciences: 47-103 and 47-104 plus 8 hours in the physical sciences (chemistry or physics)	16 semester hours
History: 70-101, 70-102, and 70-417 plus 6 hours in social studies other than history	13 semester hours
Fine Arts: 54-205 and 54-206	6 semester hours
Psychology: 51-201	3 semester hours
Health: 58-101	3 semester hours
Physical Education: RPE four semesters	0 semester hours
Total:	59 semester hours
ROTC	16 semester hours

*For teaching fields of Science and Mathematics, requirements are 8 semester hours as follows: 30-119 and 30-131.

Area B: Professional Education

Education: 50-201, 50-301, 50-302, 50-308, 50-400, 50-401, 50-402, and 50-408	33 semester hours

Area C: Major Teaching Field—Last Five Semesters

The requirements in each of the major teaching fields offered at The Citadel are as follows:

. English

Composition and Literature (80-101)	3 semester hours
Composition and Literature (80-102)	3 semester hours
Major British Writers (80-201)	3 semester hours
Major British Writers (80-202)	3 semester hours
Introduction to Public Speaking (80-205)	3 semester hours
American Literature (Select from following courses: 80-341, 80-342, 80-343, 80-344)	6 semester hours
A Survey of World Literature (80-405)	3 semester hours
Principles of Literature Criticism (80-407)	3 semester hours
Effective Writing (80-413)	3 semester hours
Modern English Grammar (80-414)	3 semester hours
The English Language (80-415)	3 semester hours
Adolescent Literature (80-425)	3 semester hours
Total:	39 semester hours

2. History

A Survey of American History (70-101 and 70-102)	6 semester hours
History of Western Civilization (70-221 and 70-222)	6 semester hours
The American South (70-401)	3 semester hours

Afro-American History, 1619 to Present (70-416)	3 semester hours
History of Modern Russia (70-424)	3 semester hours
Latin American History (70-451)	3 semester hours
Approved history electives	6 semester hours
Total:	30 semester hours

3. Mathematics

College Algebra and Trigonometry (30-119)	4 semester hours
Analytic Geometry and Calculus (30-131 and 30-132)	8 semester hours
Linear Algebra (30-240)	3 semester hours
Introductory Statistics (30-211)	3 semester hours
Modern Algebra (30-303)	3 semester hours
Modern Geology (30-305)	3 semester hours
Introduction to Computer Science I (36-201)	3 semester hours
History of Mathematics (30-412)	3 semester hours
Approved mathematics electives	6 semester hours
Total:	36 semester hours

4. Sciences

a. The approved program in science requires the following:

Introduction to Botany (47-103)	4 semester hours
Introduction to Zoology (47-104)	4 semester hours
Genetics (47-308)	4 semester hours
General Chemistry (40-101 & 40-102)	6 semester hours
General Chemistry Lab (40-111 & 40-102)	2 semester hours
Organic Chemistry (40-207)	3 semester hours
Organic Chemistry Laboratory (40-217)	1 semester hour
Introduction to Earth Science I (45-201)	4 semester hours
Introduction to Earth Science II (45-202)	4 semester hours
Astronomy (26-201)	3 semester hours
Physics for Engineers & Physical Scientists (26-210 & 26-260)	4 semester hours
Physics for Engineers & Physical Scientists (26-211 & 26-261)	4 semester hours

Physics for Engineers & Physical Scientists (26-212 & 26-262)	4 semester hours
Total:	47 semester hours

b. The approved program in biology requires the following:

Introduction to Botany (47-103)	4 semester hours
Introduction to Zoology (47-104)	4 semester hours
Ecology (47-406)	4 semester hours
General Anthropology (62-201)	3 semester hours
Introduction to Chemistry (40-103)	3 semester hours
Chemistry Laboratory (40-113)	1 semester hour
Introduction to Chemistry (40-104)	3 semester hours
Chemistry Laboratory (40-114)	1 semester hour
Physics (26-203 & 26-253)	4 semester hours
Physics (26-204 & 26-254)	4 semester hours
Five approved electives selected from any of the following areas:	15-20 semester hours
Physiology:	
Cell Biology (47-205)	3 semester hours
Human Physiology and Human Psychology Laboratory (47-304 & 47-306)	4 semester hours
Field Biology:	
The Vascular Flora of South Carolina (47-314)	4 semester hours
General Entomology (47-321)	3 semester hours
Ornithology (47-408)	4 semester hours
Marine Biology (47-409)	4 semester hours
Vertebrate Natural History (47-410)	4 semester hours
Developmental Biology:	
Evolution (47-208)	3 semester hours
Genetics (47-308)	3 semester hours
Descriptive Biology:	
Survey of the Plant Kingdom (47-203)	4 semester hours
Invertebrate Zoology (47-301)	4 semester hours
Human Anatomy and Human Anatomy Laboratory (47-303 and 47-305)	4 semester hours
Microbiology (47-310)	4 semester hours

General Parasitology (47-405)	3 semester hours
Total:	46-51 semester hours

c. The approved program in General Science requires the following:

Introduction to Chemistry and Introduction to Chemistry Laboratory (40-103, 40-113, and 40-104, 40-114)	8 semester hours
Introduction to Botany and Introduction to Zoology (47-103 and 47-104)	8 semester hours
Physics (26-203, 26-253, 26-205, and 26-254)	8 semester hours
Introduction to Earth Science I and II (45-201 and 45-202)	8 semester hours
Total:	32 semester hours

5. Social Studies

A Survey of American History (70-101 and 70-102)	6 semester hours
History of Western Civilization (70-221 and 70-222)	6 semester hours
Economic Origins and Principles (5-201)	3 semester hours
American National Government (60-102)	3 semester hours
State and Local Government (60-303)	3 semester hours
Introduction to Sociology (61-201)	3 semester hours
Cultural Anthropology (62-202)	3 semester hours
Elementary Geography (71-109)	3 semester hours
One elective course to be selected from anthropology, geology, government, economics, psychology and history	3 semester hours
Total:	33 semester hours

Physical Education Curriculum

Area A: Common Learnings

English: 80-101, 80-102, 80-201, 80-202	12 semester hours
Mathematics: 30-105, 30-106	6 semester hours
Sciences: 47-104, 47-303, 47-304, 47-305, 47-306 plus 8 hours of a physical science (chemistry or physics)	20 semester hours
History: 70-101, 70-102, 70-417	7 semester hours
Fine Arts: 54-205, 54-206	6 semester hours
Health: 58-101	3 semester hours

Physical Education: RPE four semesters	0 semester hours
Total:	54 semester hours
ROTC	16 semester hours
Area B: Professional Education	
Education: 50-301, 50-302, 50-307, 50-308, 50-408, 59-433, 59-404, 59-400, plus 4 Applied Methods Courses	41 semester hours
Area C: Major Teaching Fields	
Introduction to Physical Education (59-101)	3 semester hours
Learning Theory & Methodology in Physical Education (59-102)	3 semester hours
Measurement & Evaluation in Physical Education (59-205)	3 semester hours
Special Physical Education (59-403)	3 semester hours
Physiology of Exercise (59-419)	3 semester hours
Kinesiology (59-314)	3 semester hours
Care & Prevention of Athletic Injuries (59-402)	3 semester hours
Senior Seminar (59-421)	1 semester hour
Total:	22 semester hours

Course Descriptions

50-201. *Introduction to Education* Three Credit Hours

Open to any interested student.

An orientation to teaching as a profession and to the teacher-training program. Study and discussion on school organization and teachers' roles and responsibilites; personal and professional guidance. Students will work weekly in a public school.

50-301. *Philosophy of Education* Three Credit Hours

A survey of the history, philosophies, and theories underlying organized education and the significance of the dissemination of knowledge in a democracy.

50-302. *Educational Psychology* Three Credit Hours

This course focuses on the application of psychological principles of teaching, psychological adjustment, and evaluation and management. Each student will work weekly in a public school to gain experiences in a clinical setting.

50-303. *Guidance* Three Credit Hours

An experimental study of the scope of contemporary guidance programs and concepts of career development. Special emphasis will be placed on having students choose and carry out a personal behavior change project and a vocational self-assessment.

50-307. *Child Development* Three Credit Hours

Acquisition of understanding and appreciation of the mental, physical, social, and emotional aspects of development in childhood. Emphasis on techniques of motivation, principles of learning, learning styles, individual differencese, and developmental problems.

50-308. *Adolescent Development* Three Credit Hours

Acquisition of understanding and appreciation of mental, physical, social, and emotional aspects of development from puberty to early adulthood. Emphasis on the impact of environmental and biological factors on the physical, cognitive, and personality development of the adolescent and the implications resulting from this for educational procedures.

50-309. *The Contemporary American Family* Three Credit Hours

A frank and comprehensive analysis of the problems confronting the modern American family, with case studies treating the various phases of conflict with the family.

50-315. *Introduction to Exceptional Children* Three Credit Hours

Designed to introduce students to children, adolescents, and young adults who have special educational needs which must be met in order for their school experiences to be successful. This course will take a non-categorical approach to special education. It will discuss these special students from the view of learning, physical, emotional, and behavioral problems. Primary teaching strategies will include practice activities and applications as well as class discussions.

50-400. *Internship in Teaching* Twelve Credit Hours

Prerequisites: 50-301, 50-302, 50-308, 50-401, and 50-402.

A requirement for certification; observation and teaching in approved schools under approved supervising teachers; supervision by college instructor. Assignment only in major teaching field. This internship covers twelve weeks, from 8:00 to 3:30 daily. Each student provides his own transportation. Formal application for Internship in Teaching must be made not later than six weeks prior to the beginning of the semester of registration.

50-401. *Methods and Materials of Secondary-School Teaching* Three Credit Hours

Study of the aims, methods, and materials employed in secondary-school teaching; organization of subject matter; motivation and direction of learning; development of attitudes, appreciations, and ideals; classroom presentation of formal materials. The utilization of audio-visual hardware and software and the development and use of evaluative instruments in the total teaching-learning process will be emphasized.

50-402. *Special Methods in Teaching* Three Credit Hours

Special techniques, theories, and materials in teaching in the area of specialization in secondary education, grades 6-12. A. English; B. Science; C. Social Studies; D. Mathematics.

50-408. *Teaching Reading in the Secondary School* Three Credit Hours

Designed to acquaint middle-school and high-school teachers with reading practices geared to their students. The course will include a broad survey of the field of reading with attention given to some diagnostic procedures as well as the development of general reading programs for the middle school and senior high school levels. Different subject areas will be considered.

50-409. *Special Topics in Education* Three Credit Hours

Prerequisite: permission of the instructor and/or department head.

A course designed for the intensive study of a current problem in the field of education at the undergraduate level.

50-420. *Independent Study/Research* Three Credit Hours

Prerequisite: permission of the instructor and/or department head.

This course will offer students an opportunity to acquire a deeper knowledge in an area of specialized interest related to the field of education. Prior to enrollment, each student must submit a plan of study to the department. A formal research paper will be required. Credit in Independent Study/Research is limited to 3 semester hours on a degree program.

Fine Arts

54-205. *Music Appreciation* Three Credit Hours

A non-technical course to enhance the student's understanding and enjoyment of music by a twofold approach: first, to gain fundamental knowledge of style, content, and form of the more outstanding works of the great composers; and second, to study the evolution of musical art up to the present time; particular emphasis placed upon the latter.

50-206. *Art Appreciation* Three Credit Hours

The theory of abstract principles and material techniques as applied in the evaluation of works of art. The employment of such theory in an introductory study of famous art works.

54-207. *Survey of Art History* Three Credit Hours

An introduction to the art of China, Egypt, the Mediterranean under Rome, Byzantium, and Gothic Europe. Art works from Africa, India, and Japan will also be considered. Major works will be discussed in relation to their cultural and philosophic context and content.

54-209. *Music Theory I* Three Credit Hours

Prerequisite: consent of instructor on music literacy.

Study of basic musical materials; the structure and use of all diatonic chords, sight-singing and ear training.

54-210. *Music Theory II* Three Credit Hours

Prerequisite: 54-209.

Continuation of Music Theory I. Inversions of diatonic chords; the dominant seventh chord and its inversions; nonharmonic tones; introduction to modulation; sight-singing and ear training.

Library Science

55-305. *Children's Literature* Three Credit Hours

History of children's books; their selection and evaluation, including modern books emphasizing winners of the Coldecott and Newbury Awards. Includes wide reading of all classes of children's literature and details which make children's books worthwhile. The course will be supplemented by discussions, reports, and special projects.

55-425. *Adolescent Literature* Three Credit Hours

Open to juniors and seniors and designed for the secondary-school teacher.

A study of literature for the adolescent, including materials of introducing the major literary genres to the secondary-school student.

Department of Electrical Engineering

Professors: Herring, Askins
Associate Professors: Dornetto, Schaefer
Assistant Professor: Stinson

In 1941 the Board of Visitors authorized the establishment of a Department of Electrical Engineering at The Citadel. The department was founded to meet the needs of many students who are attracted to the type of education which The Citadel offers, but who were formerly compelled to go elsewhere to obtain training in the field of their special interest.

It is the purpose of the department to prepare men for professional work or for graduate study in the field of electrical engineering and to give training in as many of the elements of a broad education as can be included in a program of professional study leading to the degree of Bachelor of Science in Electrical Engineering.

The electrical engineering program is accredited by the Accreditation Board for Engineering and Technology.

The first graduating class of eight men received degrees in September 1948. Since then, more than 750 degrees in electrical engineering have been earned at The Citadel, and facilities and curriculum have been steadily improved.

A student branch of the Institute of Electrical and Electronics Engineers was established in 1962 and is active at The Citadel; students of the junior and senior classes who meet the academic requirements may be elected to Tau Beta Pi, the national engineering honor society.

Convinced of the great value of practical experience, the department encourages and assists its majors to obtain gainful employment for at least one summer in electrical engineering or a related field.

Early in the junior year, the electrical engineering major will normally select an area of professional emphasis—such as electronics, power systems, communications, etc., and will choose his electives, in consultation with his faculty advisor, to achieve his objectives.

Probationary Admission. Students admitted to The Citadel must have a minimum score of 550 on the mathematical portion of the Scholastic Aptitude Test (SAT) in order to be admitted as an electrical engineering major. Students not meeting this requirement are admitted as probationary electrical engineering majors. Probationary students enroll in the courses prescribed for the major in the freshman year and their academic progress is closely monitored by an electrical engineering faculty advisor. After each grading period the Electrical Engineering Standing Committee on Admission and Retention (EESCAR) reviews the academic record for each probationary student to evaluate the probability of his successful completion of degree requirements. Committee action may lead to admission in full standing, continuation of probationary status, or a recommendation for a change in career goals. Probationary students are required to achieve a minimum cumulative grade-point ratio of 2.0 to be admitted in full standing. Only those students admitted to full standing will be allowed to enroll in 20-201 (Introduction to Electrical Engineering).

For a tabulation of the course requirements for electrical engineering majors, see Courses of Study section of this catalogue. With the approval of the department head, up to 6 credit hours of professional electives may be elected from courses numbered above 300 in the Department of Chemistry, Civil Engineering, Mathematics and Computer Science, or Physics.

Electrical Engineering Curriculum

20-102. *Graphic Communication* One Credit Hour

Required of electrical engineering freshmen.

Orthographic and pictorial representation, without drawing instruments, of three dimensional objects. Lettering, dimensioning, sectional and auxiliary views, and oblique and isometric sketches.

Laboratory: two hours.

20-103. *Introduction to Engineering* Three Credit Hours

Required of electrical engineering freshmen.

Branches and functions of engineering; technical decision and human welfare; professional ethics and registration; the role of the engineer in society. Formulation of problems, engineering analysis and design techniques, use of computational aids, and engineering problem solving.

Lecture: three hours.

20-201 and 20-202. *Introduction to Electrical Engineering* Three Credit Hours

Prerequisite for 20-201: 20-103 and 30-131; prerequisite or corequisite: 26-210/260.

Prerequisite for 20-202: 30-132 and a grade of C or better in 20-201; prerequisite or corequisite: 26-211/261.

Required of all electrical engineering sophomores.

Basic electrical elements and sources; Ohm's and Kirchhoff's Laws; techniques of DC circuit analysis; sinusoidal analysis and phasors; power and three-phase circuits; and transient response of simple circuits.

Lecture: three hours, two semesters.

20-204. *Electrical Laboratory* One Credit Hour

Prerequisite or corequisite: 20-202.

Required of electrical engineering sophomores.

An introduction to the experimental method. Laboratory exercises designed to supplement the material presented in 20-201 and 20-202.

Laboratory: two hours.

20-206. *Computer Applications for Electrical Engineers* Two Credit Hours

Prerequisite or corequisite: 20-202.

Required of all electrical engineering sophomores.

The computer is presented as a tool for the solution of electrical engineering problems. Elementary programming for micro and mainframe computers; the use of application programs such as SPICE and PCAP for the study of electrical circuits in the time and frequency domain; simulation of physical systems using CSMP.

Lecture: two hours.

20-301. *Linear Circuits Laboratory* One Credit Hour

Prerequisite or corequisite: 20-309.

Required of electrical engineering juniors.

A laboratory course to accompany 20-309, Linear Circuit Analysis. Formerly titled Electrical Laboratory.

Laboratory: two hours.

20-302. *Electrical Machinery Laboratory* One Credit Hour

Prerequisite or corequisite: 20-316.

Required of electrical engineering juniors.

A laboratory course to accompany 20-316, Electromechanical Energy Conversion. Formerly titled Electrical Laboratory.

Laboratory: two hours.

20-305. *Digital Systems Fundamentals* Three Credit Hours

Required of computer science majors.

Boolean algebra; digital coding; basic logic circuits; design of combinational and sequential circuits; and memory devices.

Lecture: three hours.

20-306. *Electronics I* Three Credit Hours

Prerequisite: A grade of C or better in 20-202.

Required of electrical engineering juniors.

Characteristics of solid-state devices; theory and design of low-frequency amplifiers; transistor biasing and stabilization; design of multistage and feedback amplifiers; and digital circuits.

Lecture: three hours.

20-307. *Nuclear Engineering* Three Credit Hours

Prerequisite: 26-212/262.

An introduction to the theory and application of nuclear energy. Topics include fission and the chain reaction; nuclear fuels; nuclear reactor principles, concepts, examples, construction, operation, and ecological impact; heat transfer and fluid flow; radiation hazards and shielding; nuclear propulsion; and controlled fusion.

Lecture: three hours.

20-308. *Elements of Electrical Engineering* Three Credit Hours

Prerequisite: 30-231.

Required of civil engineering juniors.

Fundamental electrical concepts and units. Basic laws of electrical circuits. Equivalent circuits. DC and steady-state AC circuits analysis. Effective current, average power, and three-phase power.

Lecture: two hours; problem session or demonstration: two hours.

20-309. *Linear Circuit Analysis* Three Credit Hours

Prerequisites: 26-212/261, 30-234, and a grade of C or better in 20-202.

Required of electrical engineering juniors.

The study of continuous and discrete systems utilizing Laplace and z-transform theory.

Lecture: three hours.

20-311. *Digital Logic and Circuits* Three Credit Hours

Prerequisite: 20-202; prerequisite or corequisite: 20-313.

Required of electrical engineering juniors.

Introduction to Boolean algebra; digital data coding; digital arithmetic; design of combinational and sequential circuits; design, construction and evaluation of digital circuits using industry standard digital integrated circuits.

Lecture: three hours.

20-312. *Systems I* Three Credit Hours

Prerequisite: 20-309.

Required of electrical engineering juniors.

An introduction to feedback control systems; system representation; stability; root-locus and frequency response; compensation.

Lecture: three hours.

20-313. *Electronics Laboratory* One Credit Hour

Prerequisite or corequisite: 20-306 and 20-311.

Required of electrical engineering juniors.

Experimental studies coordinated with the subjects studied in 20-306 and 20-311.

Laboratory: two hours.

20-316. *Electromechanical Energy Conversion* Three Credit Hours

Prerequisite: 20-309.

Required of electrical engineering juniors.

Analysis of transformers. Fundamentals of electromechanical energy conversion. Study of DC, induction, and synchronous machines.

Lecture: three hours.

20-318. *Electromagnetic Fields* Three Credit Hours

Formerly 20-217.

Prerequisite: 20-204, 26-212/262, 30-234, and a grade of C or better in 20-202.

Prerequsite or corequisite: 30-335.

Required of electrical engineering juniors.

Static and Magnetic Fields. Experimental laws and their relation to Maxwell's equations. Laplace and Poisson's equations, boundary value problems. Time varying fields, plane waves, and transmission line phenomena.

Lecture: three hours.

20-324. *Technology and Society* Three Credit Hours

Open to juniors and seniors in all majors.

An exploration of the impact of twentieth century technology on society, of the nature of the technology/society interfaces, and the problems encountered in predicting societal response to technological developments. Also included is an examination of the influence of private

and public policies in shaping technology and, through it, society; and a demonstration of the need for joint action by technologists and humanists.
Lecture: three hours.

20-330. *Digital Systems Engineering* Three Credit Hours
Prerequisites: 20-311, 20-313, and 20-309.
Required of electrical engineering juniors.

Characteristics, specifications, and design of digital systems. Analysis and synthesis of sequential circuits. Microprocessor interfacing.
Lecture: three hours.

20-401. *Electronics II* Three Credit Hours
Prerequisite: 20-306.

Ideal and non-ideal operational amplifiers; active filters; comparators; and characteristics and applications of modern linear and digital integated circuits.
Lecture: three hours.

20-403. *Electric Power Systems* Three Credit Hours
Prerequisite: 20-316.

A study of electrical power generation, transmission, and distribution; load flow, faults, and system stability; system economics.
Lecture: three hours.

20-404. *Quality Control and Reliability* Three Credit Hours
Prerequisites: 30-231 and 20-316, or consent of instructor.

Basic principles, procedures, and engineering management of industrial quality control. Inspection by attributes and by variables, rectifying inspection, control charts, and design of experiments. Case studies of effectiveness and reliability of electrical systems.
Lecture: three hours.

20-405. *Electrical Measurements* Two Credit Hours
Prerequisite: 20-302; prerequisite or corequisite: 20-415.

Precision methods of measuring electromotive force, resistance, current, inductance, capacitance, and dissipation factor; analysis of instrumentation circuits; design of experiments; analysis of experimental data.
Lecture: two hours.

20-407. *Systems II* Three Credit Hours
Prerequisite: 20-312.

A continuation of Systems I with primary emphasis on modern control theory. Advanced design and compensation; state-variable feedback; Liapunov's second method; and optimal design.

Lecture: three hours.

20-413. *Advanced Topics in Electrical Engineering* Three Credit Hours

Prerequisite: 20-306 and 20-311.

Advanced topics in electrical engineering. Offered occasionally when the special interests of students and faculty coincide. The syllabus must be approved by the Electrical Engineering Faculty. This course may be taken only once for credit.

Lecture: three hours.

20-414. *System Simulation* Three Credit Hours

Prerequisites: 30-232 or 30-234 and 36-201, 36-207, or 20-206.

An introduction to system concepts; mathematical models of systems; simulation methods applied to a broad range of systems.

Lecture: three hours.

20-415. *Electrical Measurements Laboratory* One Credit Hour

Prerequisite or corequisite: 20-405.

A laboratory course to accompany 20-405.

Laboratory: two hours.

20-416. *Communications Engineering* Three Credit Hours

Prerequisites: 20-311 and 20-306.

Principles of amplitude, frequency, and pulse modulation. Signal flow and processing in communications systems. Digital data systems.

Lecture: three hours.

20-421. *Design I* Three Credit Hours

Prerequisite: 20-302, 20-306, 20-312, 20-316, and 20-318.

Required of electrical engineering seniors.

A study of the engineering design process; establishment of objectives and evaluation criteria, analysis synthesis, construction, testing, and evaluation. Exercises in design, documentation and reporting. Development of a proposal for a major design project for 20-422 Design II.

Lecture: one hour.

Laboratory: four hours.

20-422. *Design II* Three Credit Hours

Prerequisite: 20-421.

Required of electrical engineering seniors.

Implementation, documentation, and reporting on a major design project. Normally to be accomplished by students working in small groups. Each student will make a written and oral presentation on his contributions to the project.

Lecture: one hour.

Laboratory: four hours.

20-424. *Solid-State Devices* Three Credit Hours.

Prerequisites: 30-335 and 20-318.

Required of electrical engineering seniors.

Basic principles governing the operation of solid-state devices are developed from fundamental concepts. P-N junction theory is developed and applied to the analysis of devices such as bipolar transistors, solar cells, detectors, and photo devices. The theory of field-effect devices is developed. Formerly numbered 20-303.

Lecture: three hours.

20-426. *Antennas and Radiowave Propagation* Three Credit Hours

Prerequisites: 20-318 and 30-335.

Transmission, radiation, and propagation of electromagnetic waves by means of transmission lines, waveguides, optical fibers, and antennas.

Lecture: three hours.

20-428. *Digital Systems Design* Three Credit Hours

Prerequisite: 20-305.

Required of computer science majors.

Structure of digital systems; timing and control; input-output; digital data communications; microprocessors.

Lecture: three hours.

Department of English

Professors: Brennan, Redd, Rembert, Tucker
Associate Professors: Alexander, Holbein, Leon, Mathis, Riley, White, O'Neil, Rhodes, Edwards
Assistant Professors: Allen, Leonard, Shields

Courses in English composition and literature are required for all freshmen and sophomores, regardless of their major fields of study.

Advanced standing with credits may be given to entering cadets who complete the College Entrance Board Advanced Placement Test in English with a grade of three or better.

The English major is designed for the student seeking a broad education suitable for a career in law, business, the armed forces, teaching, dentistry, medicine, or theology. In addition to a strong foundation in literature, the department offers a generous selection of elective courses that allows either a truly broad liberal arts education or an opportunity to take a number of courses within a secondary field.

The program within the English Department provides both depth and flexibility. Course offerings range from Anglo-Saxon literature to twentieth century American literature. The interested student may take courses n creative writing and in journalism. A system of tutorials and seminars allows both small cases and independent study.

By being allowed to take as many as ten courses outside the department during his sophomore, junior and senior years, the student has ample latitude to follow other interests. During his freshman and sophomore years, he may take a number of courses ensuring a background in a modern language, the sciences, mathematics, and the social sciences.

In his freshman year the English major must elect one of the natural sciences: biology, chemistry, or physics. Also, he must elect a modern anguage and complete two years of study. The entering freshman with two or more units in a modern language may complete the language requirement in one year by starting at the 200 level. During the sophomore year the English major is required to take 70-221 and 70-222 (History of Western Civilization) and two approved elective courses.

In English the student is required to take 80-213 and 80-214 (Survey of English Literature), 81-201 (Introduction to Philosophy), and one of the following: 80-221 (Mythology) or 80-212 (The Bible as Literature). During the junior and senior years he must take a minimum of three courses from Group A, Literature Before 1800, of which one course must be 80-317 or 80-318 (Shakespeare) and a second course must be 80-301 (Chaucer) or 80-319 (Milton). He must take three courses in Group B, Literature After 1800; two courses must be in American literature (80-341, 80-342, 80-343, or 80-344 of which one course must be 80-342 or 80-343) and one course in British literature of this group. In Group C, Critism, Language, and Writing, he must take two courses but may not use more than one course in Writing to fulfill the requirement. The student shall pursue his interests by selecting four more courses from the three groups. (Courses numbered in the 200 series, e.g., 80-205, 80-206, etc., cannot be used to fulfill this four course elective requirement.)

Unless otherwise indicated in the course descriptions, all advanced English courses are open to students who have completed their sophomore English requirements (80-201 and 80-202 or 80-213 and 80-214) or who have the approval of the department head.

For a tabulation of the requirements for the English major, see the Courses of Study section of this catalogue..

The courses in philosophy are included in the English curriculum under code number 81:

80-100. *English Fundamentals* No Credit

Drill in basic writing skills: mechanics, spelling, syntax, usage, and sentences. Recommended for all students whose test scores suggest that they are weak in the fundamentals of English. (Offered only in summer sessions.)

80-101 and 80-102. *Composition and Literature* Three Credit Hours Each Semester

Required of all freshmen.

The development of the basic skills of writing and reading and of literature evaluations through the study of literary types. 80-101: reading and evaluation of essays; writing of paragraphs and themes. 80-102: introduction to fiction, poetry, and drama; writing of themes. 80-101 is a prerequisite for 80-102.

0-201 and 80-202. *Major British Writers* Three Credit Hours
Each Semester

Prerequisites: 80-101 and 80-102.

Required of all sophomores other than English majors.

Study in depth of major writers in British literature from the medieval eriod to the present. 80-201: Beowulf, Chaucer, Shakespeare, Milton, ope, and Swift. 80-202: Wordsworth, Keats, Tennyson, Browning, ardy, Yeats, and Eliot. Several themes assigned on the literature tudied.

0-205. *Introduction to Public Speaking* Three Credit Hours

Prerequisite: 80-101.

Open to freshmen who have completed 80-101 and all upperclassmen.

The general principles of speech composition and speech presentation; ractice in expository speaking.

0-206. *Persuasive Speaking* Three Credit Hours

Prerequisite: 80-205.

Open to sophomores, juniors, and seniors.

Logic, rhetoric, and psychology of securing desired reactions from iendly, neutral, and hostile audiences; sources of speech material and lanning the speech; and improvement of volume, diction, rate, and latform manners in extemporaneous and manuscript delivery of classoom speeches.

-210. *General Semantics* Three Credit Hours

Open to sophomores, juniors, and seniors.

A psychological approach to the study of language as an abstracting rocess employing a system of verbal symbols for informative, directive, nd affective purposes.

-211. *Mythology* Three Credit Hours

Open to sophomores, juniors, and seniors.

A study of mythology with special emphasis on Greco-Roman and orthern European myths. A discussion of the leading theories concerng the origins, development, and significance of myths together with the lusive and allegorical use of myth in later literature and art.

-212. *The Bible as Literature* Three Credit Hours

Open to sophomores, juniors, and seniors.

A study of selected portions of the Old and New Testaments as literary asterpieces and cultural monuments, with some attention to the major stems of interpretation.

80-213 and 80-214. *Survey of English Literature* Three Credit Hours Each Semester

Prerequisites: satisfactory completion of 80-101 and 80-102 or their equivalent. Students who have received course credit for 80-201 and 80-202 cannot receive additional credit for 80-213 and 80-214.

Required of all English majors.

First semester: a study of English literature from its beginnings to the end of the eighteenth century. Second semester: a study of English literature from the end of the eighteenth century to the present. Both courses will include some consideration of historical backgrounds and literary movements.

GROUP A
Literature Before 1800

English majors must complete a minimum of 9 hours in this area: 3 in Shakespeare (80-317 or 80-318), 3 hours in Chaucer (80-301) or Milton (80-319), and 3 hours in one other course of this group.

80-300. *The Literature of Medieval England, exclusive of Chaucer* Three Credit Hours

Open to juniors and seniors.

A survey of the most important literature composed during the Old English and Middle English periods, some in the original languages, some in translation.

80-301. *Chaucer* Three Credit Hours

Open to juniors and seniors.

An introduction to Chaucer's language, art, and cultural milieu through readings of *The Canterbury Tales, Troilus and Criseyde,* and some of the shorter poems.

80-317 and 80-318. *Shakespeare* Three Credit Hours Each Semester

Open to juniors and seniors.

A study of representative plays—comedies and histories (80-317) and tragedies (80-318)—to give the student insight into the greatness of Shakespeare as dramatist and poet.

80-319. *Milton* Three Credit Hours

Open to juniors and seniors.

A study of *Paradise Lost,* of *Samson Agonistes,* and of representative prose works, with special attention to the philosophical content.

80-320. *Non-dramatic Literature of Sixteenth Century England* Three Credit Hours

Open to juniors and seniors.

A study of the principal writers of the period, with particular emphasis on the prominent aspects of the Renaissance spirit.

80-321. *Seventeenth Century Poetry and Prose, exclusive of Milton* Three Credit Hours

Open to juniors and seniors.

A study of representative prose prior to the Restoration, of representative poetry of Ben Jonson and his "sons," and of John Donne and the metaphysical poets.

80-322. *Survey of English Drama to 1642, exclusive of Shakespeare*

Open to juniors and seniors.

A detailed study of representative plays, exclusive of Shakespeare's, from the medieval beginnings of English drama to the closing of the theatres in 1642.

80-323. *Restoration and Eighteenth Century English Literature, 1660-1744* Three Credit Hours

Open to juniors and seniors.

A study of the new spirit of English prose and poetry which came with the Restoration. Some emphasis will be given to the philosophical, religious, political, and social backgrounds. Major figures: Dryden, Swift, and Pope, with some attention to the lesser writers of the period.

80-324. *The Age of Johnson, 1744-1798* Three Credit Hours

Open to juniors and seniors.

A study of the decline of Neoclassicism, the rise of prose, and the movement toward Romanticism.

GROUP B

Literature After 1800

English majors must complete a minimum of 9 hours in this area: 6 hours in American literature (80-341, 80-342, 80-343, or 80-344 of which 3 hours must be 80-342 or 80-343) and 3 hours in a British literature course of this group.

80-325. *The Romantic Movement* Three Credit Hours

Open to juniors and seniors.

A study of the chief features which culminated in the Romantic of the nineteenth century, with special emphasis on the five major poets: Wordsworth, Coleridge, Byron, Shelley, and Keats.

80-326. *Victorian Poetry and Prose* Three Credit Hours

Open to juniors and seniors.

A study of the period from 1830 to 1900, showing the effects of the Industrial and Scientific Revolutions on traditional attitudes toward art and life through the works of the major writers of the period, with emphasis upon the poetry of Tennyson, Browning, and Swinburne and upon the prose of Carlyle, Arnold, Huxley, and Pater.

80-329. *The Development of the English Novel to 1900* Three Credit Hours

Open to juniors and seniors.

Lectures on narrative forms which preceded the novel and on lives and works of major eighteenth and nineteenth century novelists; reading and discussion of selected novels.

80-330. *The American Novel* Three Credit Hours

Open to juniors and seniors.

A course in the reading and critical analysis of selected American novels including from time to time novels by Cooper, Hawthorne, Melville, Twain, James, Hemingway, and Faulkner, among others.

80-331. *Modern Drama* Three Credit Hours

Open to juniors and seniors.

A study of the representative plays to show the development of late nineteenth century English and twentieth century English and American drama under the influence of Ibsen, Strindberg, Pirandello, Maeterlinck, and other continental playwrights. Major figures include Shaw, O'Neill, Miller, and Williams.

80-332. *Modern British Novel from 1900* Three Credit Hours

Open to juniors and seniors.

A course in the reading and criminal analysis of selected British novels by writers like Conrad, Joyce, Lawrence, Forster, Waugh, and some contemporary novelists.

80-333. *Southern Literature to 1900* Three Credit Hours

Open to juniors and seniors.

A survey of the literary achievement of Southern writers from 1710 to 1900.

80-334. *Twentieth Century Southern Literature* Three Credit Hours

Open to juniors and seniors.

A study of the most important Southern authors of the twentieth century, from Ellen Glasgow to the present day, with emphasis on significant regional topics such as the Fugitive and Agrarian Movements, the development of the Southern Tradition, and the Southern Gothic School.

80-335. *Contemporary British Literature* Three Credit Hours
Open to juniors and seniors.

A study of the selected British writers whose works are representative of the ideas, literary techniques, and cultural patterns of England and Ireland from World War II to the present.

80-336. *Modern British Poetry* Three Credit Hours
Open to juniors and seniors.

A study of British poets from the 1890's until World War II with an emphasis on the work of Hopkins, Hardy, the poets of the First World War, Yeats, Thomas, and Auden.

80-341. *Early American Literature* Three Credit Hours
Open to juniors and seniors.

A study of the American writings from the time of the first settlement through the colonial period and ending with the early nationalism.

80-342. *American Romantic Literature* Three Credit Hours
Open to juniors and seniors.

A study of American authors from the period of the establishment of a national literature. The course includes such writers as Hawthorne, Poe, Melville, Emerson, Thoreau, and Whitman.

80-343. *Literature of American Realists* Three Credit Hours
Open to juniors and seniors.

A study of American literature following the Civil War and up to the twentieth century. The course includes local colorists and such writers as Dickinson, Twain, James, and Crane.

80-344. *American Twentieth Century Literature* Three Credit Hours
Open to juniors and seniors.

A study of representative selections of modern and contemporary American writers.

GROUP C

Criticism, Language, and Writing

English majors must complete 6 hours in this area.

80-405 and 80-406. *A Survey of World Literature* Three Credit Hours Each Semester

Open to juniors and seniors.

80-405: Masterpieces of world literature in translation from the *Rig Veda* to Dante with special attention to the philosophical content and the development of literary forms.

80-406. Masterpieces of world literature in translation from Boccaccio to the present time with special attention to the philosophical content and the development of literary forms.

80-407. *Principles of Literary Criticism* Three Credit Hours

Open to senior English majors and to any student who has completed four courses in English above the sophomore level, or approval of the department head.

A study of literary criticism from the classical tradition to the modern period.

80-411. *Writing in the Professions* Three Credit Hours

Prerequisites: 80-101 and 80-102.

The course emphasizes the application of the principles of effective writing and of vocabulary development to a given profession such as law, engineering, or medicine.

80-413. *Effective Writing* Three Credit Hours

The study and practice of advanced writing techniques for those who wish to improve their prose styles. This course fulfills state teacher certification requirements for advanced composition.

80-414. *Modern English Grammar* Three Credit Hours

Open to juniors and seniors and designed for the secondary-school teacher.

An analysis of the structure of Modern English, its phonology, morphology, and syntax, with explorations into the conceptual basis of language and the way in which grammar generates meaning.

80-415. *The English Language* Three Credit Hours

Open to sophomores with approval of department head, and to juniors and seniors.

A survey of the English language beginning with the Indo-European backgrounds, tracing the development of Old, Middle, and Modern English through major phonological, morphological, and syntactic changes, with some attention to dialectical variations and semantic changes.

80-417. *Journalism* Three Credit Hours Each Semester

Open to sophomores with approval of department head, and to juniors and seniors.

Newswriting and copy editing with special emphasis on news and feature articles. Writing exercises, workshops, and laboratories involving such articles. Primary emphasis upon printed media but with some familiarization with the techniques of writing for radio and television.

80-421. *Senior Tutorial* Three Credit Hours

Prerequisite: approval of the department head.

Open to senior English majors.

A tutorial course individually designed to meet the needs or special interests of one or a few students. Assignments, tutorial sessions, tests and papers will be assigned by the professor in consultation with individual students.

80-423 and 80-424. *Senior Seminar* Three Credit Hours Each Semester

Open to senior English majors.

A seminar on the individual author, topic, or problem, as suggested by members of the faculty or by groups of English majors and subject to the approval of the department head in consultation with the instructor.

80-425. *Adolescent Literature* Three Credit Hours

Open to juniors and seniors and designed for the secondary-school teacher.

A study of literature for the adolescent, including methods of introducing the major literary genres to the secondary-school student.

80-426. *Creative Writing* Three Credit Hours

Open to juniors and seniors.

Analysis of imaginative literature and directed practice of creative writing.

Philosophy

81-201. *Introduction to Philosophy* Three Credit Hours

An inquiry into the nature of philosophic thinking, especially with regard to the problem of knowledge and the nature of reality. Primary emphasis falls upon the classical origins of Western philosophy.

81-202. *Reasoning and Critical Thinking (Logic)* Three Credit Hours

A study of the principles and methods which distinguish valid from invalid arguments. After a brief examination of what an argument is, the concepts of validity and invalidity are introduced, and a systematic study of the principles governing the application of these concepts to arguments is undertaken. An extensive treatment of traditional Aristotelian logic (the syllogism, rules of validity, immediate inference, etc.) is supplemented by an introduction to principles of modern symbolic logic.

81-301. *Ethics* Three Credit Hours

A study of the nature of morality and moral reasoning through critical analyses of the writings of classical and contemporary thinkers on this subject. Problems regarding the role of reason in human conduct will be examined in detail, with emphasis upon the nations of the good life, happiness, moral obligation and duty, right and wrong, and the nature of moral language.

81-302. *Philosophy of Religion* Three Credit Hours

Prerequisite: three semester hours of philosophy.

An analysis of what religion is, the role it plays in human life, and how it differs from such other areas of life as ethics and science. The arguments for and against existence of God are examined, as is the appeal to religious experience (e.g., mysticism). Criticism of religion, e.g., that of Freud and Marx, is considered, as are the roles of faith and revelation and the questions of evil and immortality.

81-307. *Ancient Philosophy* Three Credit Hours

Prerequisite: three semester hours of philosophy.

A study of the foundations of Western thought: the pre-Socratic Greek thinkers; Socrates, Plato, Aristotle, and their schools with emphasis upon the major writings of Plato and Aristotle.

81-308. *Medieval Philosophy* Three Credit Hours

Prerequisite: three semester hours of philosophy.

A critical survey of neo-Platonism and subsequent scholastic philosophy, with emphasis upon the thought of Plotinus, St. Augustine, Erigena, St. Anselm, St. Bonaventure, St. Thomas Aquinas, and Scotus.

81-309. *Seventeenth and Eighteenth Century Philosophy* Three Credit Hours

Prerequisite: three semester hours of philosophy.

A study of the development and results of British empiricism and continental rationalism in the seventeenth and eighteenth centuries, culminating in the critical philosophy of Kant. The chief and most influential works of Locke, Berkeley, Hume, Descartes, Leibniz, and

Spinoza will be read in an attempt to clarify and evaluate the problem of the conflict of reason and experience.

81-407. *Nineteenth Century Philosophy* Three Credit Hours

Prerequisite: three semester hours of philosophy.

Romanticism and evolution, reason and revolution: Hegel and the rise of social theory. A study of Hegel's enigmatic identification of the real and the rational, the dialectic which articulates it, and its subsequent interpretation and criticism from Marx through Nietzsche. Students will be encouraged to read and write on other thinkers of the period, including poets, historians, and scientists.

81-408. *Contemporary Philosophy* Three Credit Hours

Prerequisite: three semester hours of philosophy.

A study of the major philosophical movements and thinkers that shape our lives in the twentieth century. Existentalism, phenomenology, process philosophy, logical positivism, analytic philosophy, Sartre, Kierkegaard, Camus, Marcel, Husserl, Heidegger, Wittgenstein, Ayer, Russell, Moore, Ryle, Austin, Whitehead.

81-409. *Seminar in Philosophical Topics* Three Credit Hours

Prerequisites: at least junior standing and consent of the instructor.

A study of selected topics from various fields of philosophy (e.g., philosophy of history, philosophy of science, aesthetics, philosophy of law) with special emphasis upon their contemporary relevance and interdisciplinary character. Content in any given semester to be determined by student needs.

81-410. *Man in Crisis: The Problems of Good and Evil* Three Credit Hours

Prerequisites: at least junior standing and (due to limited enrollment) consent of the instructor.

A critical look at a variety of crises facing modern humanity and how they impact upon society; their trends, right/wrong, good/evil. Consideration of crises in relationship to theology, duty, freedom, honor, justice, law, and happiness. Some lecture, considerable discussion, and classroom presentation.

Department of History

Professors: Coussons, Addington, Nichols, Harris, Brittain, J. Moore, Tyler, White, Gordon
Associate Professors: Tripp, W. Moore, Barrett
Assistant Professors: Thomas, Canevali
The Mark W. Clark Professor of History: Porch

The Department of History endeavors to give the student an acquaintance with and an appreciation of our heritage; to enable him to see causes and effects, contrasts and comparisons as shown in the development of civilization; to give him an accurate knowledge of the history of his own country and familiarize him with its institutions and the democratic ideals which have influenced American life; to acquaint the student who elects this subject with the standard works in its various fields and to prepare him to pursue graduate and professional studies.

A graduate with a major in history will, with his 24 hours of selected electives, be well qualified for the responsibilities of citizenship and also will have the broad background necessary for a successful career in business, medicine, law, the armed services, the church, and certain fields of science.

Students electing history as a major are required to take the following courses: 70-121 (Introduction to Ancient History), 70-122 (Introduction to Medieval History), 70-231 and 70-232 (Survey of Modern Europe, 1500-1815 and Survey of Modern Europe, 1815 to Present), 70-101 and 70-102 (A Survey of American History), 70-328 (History of England Since 1485), 70-424 (History of Modern Russia), 70-461 (The Modernization of China and Japan), and 71-109 (Elementary Geography). In addition, they are required to take 6 semester hours of advanced courses in American history during their junior year and also during their senior year.

From outside the department they are required to take 12 semester hours of a modern language; 5-201 (Economic Origins and Principles) nd 5-202 (Economic Principles and Problems); 60-102 (American ational Government); and 9 additional hours of Political Science (60-refix) courses numbered at the 300-400 level. All cadets are required to ake at least 12 semester hours of English, 8 semester hours of the same cience, 6 semester hours of mathematics, and eight semesters of ROTC. or further details see the tabulation of the curriculum for history majors the Courses of Study section of this catalogue..

0-101 and 70-102. *A Survey of American History* Three Credit Hours
Each Semester

Required of all cadets.

Survey of American history from the period of discovery to the resent; a brief treatment of the colonial period, followed by a more etailed study of such subjects as the causes of the Revolution, the aming of the Constitution, the development of political parties, the ctional conflict, economic progress and problems, and foreign relations; pecial emphasis placed on understanding the nature of American emocracy and the role of the United States in world affairs from 1789 to e present.

0-121. *Introduction to Ancient History* Three Credit Hours

Required of all history majors.

A carefully highlighted survey designed to provide the beginner tending to major in history with a clear understanding of the nportance and antiquity of the basic foundations, institutions, and roblems of our world. Prehistory, Mesopotamia, Greece, and Rome are pecially stressed, with briefer glimpses of the more significant develop-ents in other areas of contemporary civilizations.

0-122. *Introduction to Medieval History* Three Credit Hours

Required of all history majors.

The Dark Ages; revival of civilization in the West under Charlemagne; udalism and manorialism; the Holy Roman Empire; medieval warfare; se of towns and the guild system; the medieval church and the papacy; e Crusades; the medieval world of Byzantium; the growth of Islam; ievan Russia; the Mongol invasions; the Black Death; the decline of the apacy; the Hundred Year's War.

0-221 and 70-222. *History of Western Civilization* Three Credit Hours
Each Semester

Required of sophmores majoring in English, modern languages, olitical science, and psychology.

A survey of the development of Western institutions, ideas, and cultures from the beginnings to the present day. Emphasis is given to the economic, social and cultural forces as well as to purely political and military ones. First semester to 1660, second from 1660 to the present.

70-231. *Survey of Modern Europe, 1500-1815* Three Credit Hours

Required of all history majors.

Continuation of the saga of Western civilization; the Renaissance and Reformation eras; the age of civil and religious wars; the nation state; the development of absolutism; the scientific revolution; the growth of the Russian Empire; the European power balance; the Age of Reason; the Agricultural and Industrial Revolutions; the era of the French Revolution and Napoleon.

70-232. *Survey of Modern Europe, 1815 to Present* Three Credit Hours

Required of all history majors.

Romanticism and the reaction to the French Revolution and Napoleon; liberalism, nationalism, industrialism; and the Revolutions of 1848; socialism, Darwinism, and the realist reaction; Italian and German unifications; imperialism; the road to World War I; the Russian Revolution; communism, fascism, economic stress, and the road to World War II; the Cold War; the era of the superpowers.

70-261. *History of Naval Warfare* Three Credit Hours

A survey of the history of naval warfare since ancient times, with emphasis on the historical development of naval strategy, tactics, organization, and influence on world affairs.

70-271. *The Old West* Three Credit Hours

A study of the settlement of the West and its influence on American life. Topics examined include: mountain men and missionaries; Indians and Indian figures; the cowboy and the cult of Western heroes; patterns of frontier violence; homesteading; mining towns; railroad building. Emphasis given to national traits, like individualism, associated with the frontier experience; and to the influence of the West on American life to the present day.

70-301. *History of Colonial America to 1763* Three Credit Hours

The motives of colonization; the evolution of self-government; the extension of the frontier; economic, social, and religious life; imperial rivalries.

70-302. *The American Revolution and the Establishment of the Union* Three Credit Hours

A study of American history, 1763-1800; the causes of the Revolution, War for American Independence, problems of Confederation, the establishment of the Union in the Federalist period.

70-303. *The Jeffersonian and Nationalist Period* Three Credit Hours

A study of American history, 1800-1850, with an emphasis on the clash of Federalist and Jeffersonian Principles; emerging political and cultural nationalism; the War of 1812; the influence of Jacksonian Democracy in the political, social, and economic life, growing sectionalism; and the Mexican War.

70-304. *Disunion and the War for Southern Independence* Three Credit Hours

The political, economic, diplomatic, and military history of the United States, 1850-1865, emphasizing the forces that tended to bind or disrupt the Union and including a detailed account of the war.

70-305. *America Comes of Age, 1865-1919* Three Credit Hours

Reconstruction, the last frontier, the advent of big business with its effects, the origins of American imperialism, the Spanish-American War, the Progressive movement, the First World War, and the Treaty of Versailles.

70-306. *The United States Since 1919* Three Credit Hours

Concentration is on the impact of modernization, depression, war, and the Cold War on the American nation. Jazz Age, New Deal, Fair Deal, etc., are studied, and succeeding decades are contrasted with one another.

70-321. *The High Middle Ages* Three Credit Hours

Europe from about 1200 to the Renaissance. The high tide of medieval civilization, often underestimated. The splendor of papacy and cathedral, the impressive mind of Aquinas, Roger Bacon, the genius of Chaucer, emergence of universities and ever-burgeoning town life. Medieval monarchies and empires.

70-322. *Renaissance and Reformation* Three Credit Hours

The Renaissance as a Europeanwide movement emanating from the Italian peninsula; the crisis of the church medieval and the rise of the Renaissance papacy; Humanism, with special emphasis on the great painters, architects, and sculptors such as Giotto, Brunelleschi, Donatello, Bontticelli, da Vinci, Raphael, and Michaelangelo; the Renaissance city-states, Machiavelli, and the Renaissance monarchies of France, England, Spain, and the Holy Roman Empire; the continuing crisis of the church medieval and the religious upheavals of Protestanism; the work of Luther, Calvin, Zwingli, and the Anabaptists; the Catholic Reformation; the age of civil and religious wars; the Thirty Years' War and the Treaties of Westphalia.

70-323. *Absolutism and the Age of Reason* Three Credit Hours

Europe, 1648-1789, the ascendancy of France, emergence of Prussia and Russia, colonial rivalries, dynastic struggles, enlightment, and rationalism.

70-324. *The Era of the French Revolution and Napoleon* Three Credit Hours

A survey of the causes of the Revolution followed by an examination of the principal events of the period with stress on the major personalities, the development of ideologies and revolutionary mentality, the political and social aspirations of the lower social orders, and the unstable nature of the various revolutionary governments. The second half of the course will trace the rise of Napoleon and his achievements as civil administrator, military strategist, and commander. Special attention will be placed on Napoleon's campaigns, the French impact on Europe, and the reason for Napoleon's eventual downfall.

70-325. *History of Europe, 1815-1914* Three Credit Hours

A survey of Europe from Waterloo to Sarajevo; political reaction and reform; the Industrial Revolution and its economic, social, and political effects; the effects of nineteenth century nationalism; the renewed interest in imperialism, other factors in international rivalries and the coming of World War I.

70-326. *History of Europe Since 1914* Three Credit Hours

A survey of the origins and impacts of two World Wars on the major European states; the political, social, and economic development of the latter; and relative positions today.

70-327. *History of England to 1603* Three Credit Hours

A survey of English history from the earliest times to the death of Elizabeth I. Special attention is given the formation of the English people in the evolution of society and institutions, with emphasis on developments most significant for Americans today.

70-328. *History of England Since 1485* Three Credit Hours

Required of all history majors.

A survey of English history from the accession of the first Tudor to the triumph of the Welfare State. Emphasis is on those developments—political, economic, and social—that constitute the vital English legacy to Americans.

70-401. *The American South* Three Credit Hours

The political, social, and economic development of the South from the 1820s to the present with an emphasis on the region within the national context as one of both change and continuity.

70-402. *South Carolina History* Three Credit Hours

A survey of the political, economic, social, and the intellectual development of South Carolina from its discovery to the present, with emphasis on the relation of the state to the South and to the nation.

70-410. *American Foreign Policy Since World War II* Three Credit Hours

Diplomatic problems arising from the war, increased responsibilities, the United Nations, American-Soviet rivalry, the Cold War, world treaties and commitments, national security strategies, economic policies, and other military and non-military initiatives in international relations.

70-411. *History of American Diplomacy* Three Credit Hours

The foreign relations of the United States from colonial times to the present, primarily emphasizing the effects of domestic pressures upon policy choices of the American government and the impact of these decisions in the international environment. Approximately two-thirds of the course deals with the period 1914 to the present.

70-412. *The American Constitution in Historical Perspective* Three Credit Hours

An examination of how history has shaped the U.S. Constitution and how its interpretation has changed history.

70-413. *Social, Intellectual and Economic History of the United States* Three Credit Hours

Analysis of the history of American thought, values and culture, and their relationship to the modernization of social and economic life. Emphasis given to such topics as the impact of Puritanism, Enlightenment, Darwinism, Pragmatism, and Freudianism; immigration, social mobility, and the sources of social conflict; business and economic growth; and the "mood of the people" as reflected in popular-culture materials like film, photography, and fiction.

70-414. *The Military History of the United States* Three Credit Hours

A study of the origins and development of the military institutions of the United States from the Revolution to the present, emphasizing military policy, organization, and technology as they illustrate the broad themes of the American military experience, and covering the major American wars in their larger aspects.

70-415. *Makers of Wealth: Business and Businessmen in American History* Three Credit Hours

Analysis of businessmen and business activity in American history and their relationship to economic, social, political, and cultural development. Topics examined include: business and economic growth; changes in corporate organization; cooperation and conflict in industrial relations; emergency and profiles of "big businessmen"; government politics and business; and images of businessmen in American culture.

70-416. *Afro-American History, 1619 to Present* Three Credit Hours

A topic survey of Afro-American history from colonial times to the present. Special emphasis given to slavery, antebellum free blacks, Reconstruction, and "Black Power." Designed to explore the history of the American black community.

70-417. *Social and Cultural History of The Non-Western World* One Credit Hour

The study of the origins and development of historical and cultural values, customs, as well as social and political institutions of selected non-western cultures. Emphasis placed on the cultures of China, Japan Southeast Asia, the Indian Subcontinent, the Arab and Islamic world and sub-Saharan Africa.

70-421. *The Greek* Three Credit Hours

From Mycenae through the Hellenistic era, with special emphasis on Greek spirit, mind, and culture. The "glory that was Greece," as evidenced by Homer, Pericles, Aristotle; by Marathon, Thermopylae Salamis; by temples, games, dramas, etc.

70-422. *The Romans* Three Credit Hours

From the foundation of the city to the fall of the Empire in the West The "grandeur that was Rome" — legions, building, administration conception — is examined as it evolved over the centuries to the collapse at the end of the fifth century.

70-424. *History of Modern Russia* Three Credit Hours

Required of all history majors.

History of the development of tsarist absolutism under the Romanov dynasty and of the religious, social, and economic institutions of the tsarist state. Intensive treatment of the 1917 Revolution and the nstitutional development of the Soviet state to world power status.

70-426. *Economic History of Modern Europe* Three Credit Hours

A survey of the development of the European economy from the origins of the first Industrial Revolution to the Common Market; particular emphasis upon those areas where increasing industrialization forced governmental action, changed social structure, and created new systems of thought.

70-430. *England in the Twentieth Century* Three Credit Hours

The efforts of the English to solve their potential, economic, imperial, social, and diplomatic problems since 1900.

70-451. *Latin American History* Three Credit Hours

Using primarily an institutional approach, this course introduces the students to present-day Latin America through an examination of the area's heritage. Topics examined include the Indian, African, and Iberian backgrounds. Roman and Moorish influences, and the lengthy colonial experience. After the wars of independence, the emergence and development of the several nations is treated. Students with additional interest in Latin America might also consider 70-476 (Latin American Studies).

70-461. *The Modernization of China and Japan* Three Credit Hours

Required of all history majors.

A study of the impact of Western imperialism on Southern Asia, China, and Japan, and East Asia's response in the nineteenth and twentieth centuries; special emphasis on the transition from traditional to modern nation-states, Confucianism in China, the samurai ethos in Chinese communism, Japanese political militarism, and the demise of colonialism in Asia.

Special Studies
(Offered upon demand)

70-471. *The Roaring Twenties* Three Credit Hours

The political, economic, social, and intellectual patterns and the foreign policy of the United States in the 1920s. The main theme is the transition of the American nation from an agrarian, moralistic, isolationalist state into an urban, secularized, industrial power involved in foreign affairs Primary topical coverage includes psycho-historical sketches of Presidents Wilson, Harding, and Coolidge; the impact of World War I; the struggle over the League of Nations; the Red Scare; the Washington Conference materialism and the revolution in morals; political and religious fundamentalism; the Scopes Trail; Prohibition; Gangsterism; the Ku Klux Klan; the 1928 presidential campaign; and the Great Crash of 1929.

70-472. *Depression and New Deal* Three Credit Hours
America in the thirties, from the crash of 1929 to the outbreak of war in Europe ten years later. Causes and consequences of the Great Depression; FDR and NRA, Big Labor, social conditions, etc.

70-473. *The Great Crusade: Americans and the Second World War* Three Credit Hours
A study of the United States in World War II which focuses upon domestic society and the relationship of the changing culture to the postwar America of global commitments and consumption of consumer goods.

70-474. *The United States in the Postwar World, Korea to Vietnam* Three Credit Hours
Economic, social, intellectual, political trends, the conquest of space, and two controversial foreign wars, as Americans cope with growing Russian power.

70-477. *Central America and the Caribbean* Three Credit Hours
An analysis of the Caribbean basin with initial emphasis on its varied geography, several nations, and racial mix. Special attention is paid to strategic concepts from the perspective of the United States. Overall emphasis is placed on a better understanding of the more recent events concerning Castro's Cuba, the Panama Canal, Nicaragua, El Salvador, Grenada, etc.

70-481. *Hitler and National Socialism* Three Credit Hours
A survey of the Nazi movement from its late nineteenth century antecedents to its culmination in 1945. Special emphasis will be given to the life of Hitler and to areas of controversial interpretation. Among these are the alleged reactionary nature of National Socialism, the "legal" rise of the party to power, the statesmanship of Hitler, his sanity, and the Holocaust.

70-482. *Studies in Soviet Policy* Three Credit Hours
Examination in depth of such topics as slave labor camps, activities of

the secret police, causes of agricultural difficulties, foreign policy successes and failures.

70-483. *Great Captains: Major Commanders from Ancient Times to the Present* Three Credit Hours

An analytical and interpretative study of the character, styles of command, and achievements of the more influential commanders in the history of warfare from Alexander the Great to Rommel. Particular attention is given to the contributions of these historical figures, to their role in the development of the concept of command and strategic formulation in the Western world, and to the relationship of military to political leadership. Among figures studied are: Alexander the Great, Hannibal, Caesar, William the Bastard, Gheghis Khan, Cromwell, Marlborough, Frederick the Great, Nelson, Napoleon, Wellington, Lee, Moltke, Rommel, MacArthur.

70-486. *Science, Technology, and the Modern World* Three Credit Hours

An interpretative study of the development of scientific thought and the impact of technological change in the modern world. Special emphasis is given to the technological shaping of human cultures.

70-487. *The Patterns of War from Ancient Times to the Late 18th Century* Three Credit Hours

A study of the patterns of war from ancient times to the event of the American Revolution with emphasis on the element of change in the technological, organizational, and social-political nature of war. The relationship between society and warfare is examined in ancient Egypt, Greece and the Roman Empire, in the Middle Ages, and in the early modern European civilization down to 1775.

(70-487 was formerly entitled Studies in Military Affairs Since the Eighteenth Century)

70-488. *The Patterns of War since the Eighteenth Century* Three Credit Hours

A study of the patterns of war from the late 18th century to the present with emphasis on the element of change in the technological, organizational, and social-political nature of war. The relationship between society and warfare is examined in the American Revolution, the age of the French Revolution and Napoleon, the American War for Southern Independence and the mid-19th century European wars, wars of overseas imperialism, the world wars, and the wars in Korea and Vietnam among others.

(70-488 was formerly entitled War and the Modern World)

70-489. *History of the Vietnam War* Three Credit Hours

The history of the Vietnam War, including the foundations of French imperialism in Indochina in the nineteenth and twentieth centuries, native resistance to this movement to the end of World War II, the First Indochina War, 1945-1954, creation of two Vietnams, American policy and intervention, withdrawal, and the fall of the Western oriented government. The course examines the impact of the war on American foreign, domestic, and military policies, as well as its impact on Indochina.

70-490. *Research Project* Three Credit Hours

Prerequisite: approval of department head and supervising professor.

An independent research project culminating in a formal paper. Research topic determined through consultation between student and supervising professor. Especially recommended for those students considering graduate or professional studies.

70-491. *Selected Studies* Three Credit Hours

Current crises, recurrent problems, and special interests of students and faculty, as circumstances dictate and permit.

Geography

71-109. *Elementary Geography* Three Credit Hours

Required of all history majors.

An introductory course dealing primarily with the elements and principles of geography. Familiarity with important global features and locations is stressed. Topics include: maps, oceans, atmosphere and winds, climate (elements and patterns), landforms, soils and agriculture, mineral resources and industry.

71-310. *Cultural Geography* Three Credit Hours

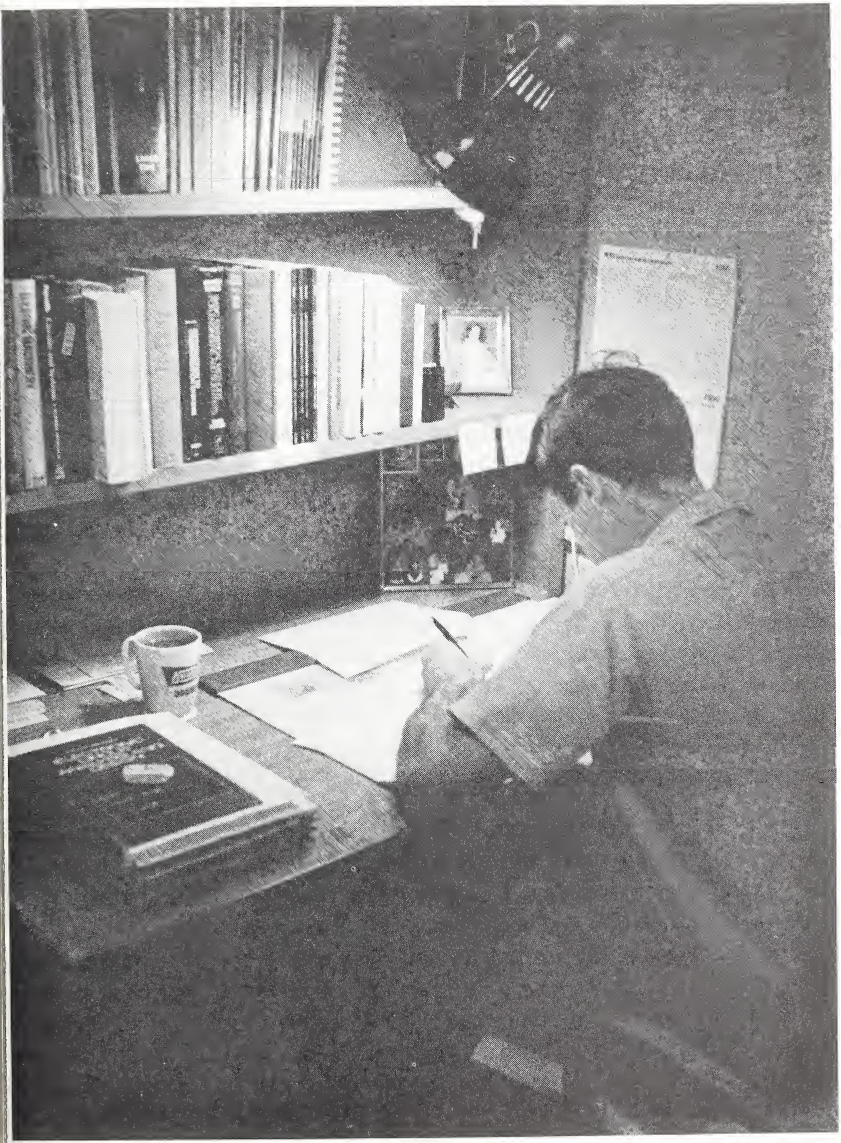
An application of geographic principles to human activities in selected regions of the world. Cultural patterns are contrasted and compared in the light of the physical environment.

71-311. *Economic Geography* Three Credit Hours

The geographic foundations and distributions of economic activities in different parts of the world.

71-312. *Historical Geography* Three Credit Hours

A survey of geographical influences in prehistory and history. Various theories of geographical determinism are evaluated against the backdrop of historical realities.



Department of Mathematics and Computer Science

Professors: Metts, Comer, Cleaver
Associate Professors: Crumley, Ingraham, Crabtree, Pages, Denig, Cohn, Greim, Durgun
Assistant Professors: Coats, Deutz, Francel, Hurd, Zahid, Riedel, Spivey, Leedy

To meet the demands of a world in which mathematics is playing an increasingly important role, The Citadel requires of all students at least one year of mathematics. In the science and engineering majors, two or more years of mathematics must be completed. Students who are pursuing non-science degrees and who are well founded in algebra are encouraged to complete 30-106 and 30-107 to meet mathematics graduation requirements.

This department offers three degree programs: the B.S. with a major in mathematics, the B.A. with a major in mathematics, and the B.S. with a major in computer science. Complete listings of the courses of study leading to these degrees are found in the Courses of Study section of this catalogue.

B.S. Mathematics Major

The B.S. program in mathematics is designed to prepare our students to pursue graduate work in pure or applied mathematics and to provide the background which will enable them to use mathematics in the behaviorial sciences as well as in more technical areas.

The course of study leading to the B.S. with a major in mathematics includes 18 semester hours of general electives to be chosen from mathematics courses numbered above 300 or from other fields, including computer science. The required courses are 9 semester hours of computer science, 36-201, 36-206, and 36-301; the following 40 semester hours of mathematics: 30-131, 30-132, 30-211, 30-231, 30-234, 30-240, 30-303, 30-

318, 30-335, 30-403, 30-404, and 30-422; and 9 hours of mathematics electives chosen from: 30-301, 30-305, 30-405, 30-411, and 30-414. The complete program is shown in the Courses of Study seciton of this catalogue.

B.A. Mathematics Major

The B.A. program features a strong preparation in mathematics with an additional opportunity to explore another field of study in some depth. The concentration (with the B.A. degree) is in mathematics; the secondary areas of study in the program are biology (medicine), business administration, computer science, political science (law), or education for those wishing to teach at the secondary level. The flexibility of these courses of study makes this a truly interdisciplinary degree program.

The courses of study include a total of 42 semester hours in approved and general electives. The candidate must take 6 semester hours of computer science: 36-201 and 36-206; 28 semester hours of mathematics, namely, 30-119, 30-131, 30-132, 30-211, 30-231, 30-232, 30-240, 30-301; and 6 semester hours of mathematics electives. Students pursuing this major *must* select one of five approved sequences of study. An outline of a general course of study is provided in the Courses of Study section of this catalogue. Courses of study for each of the five areas of study are available from the Department of Mathematics and Computer Science.

B.S. Computer Science Major

The B.S. program in computer science offers the student an academically sound experience in computer software complemented by a broad core of courses in the sciences and liberal arts, a background in mathematics which has sufficient breadth and depth to enable the student to deal with scientific applications as well as the theoretical basis of computer science, and an exposure to computer hardware (microprocessors) through courses offered by the Department of Electrical Engineering, 20-305 (Digital Systems Fundamentals) and 20-428 (Digital Systems Design). Through general electives, the student will have the opportunity to gain background in areas, such as business administration and political science, where the information processing aspects of computer sicence are readily applied.

Upon completion of this course of study, students (depending on their selection of electives) will be qualified for careers as systems analysts, system programmers, applications programmers for business or industry, or research. In addition, graduates will be well prepared to pursue advanced degrees in computer science or applied mathematics.

The course of study leading to the B.S. with a major in computer science includes 12 hours of general electives and 12 hours of mathematics and mathematics/computer science electives. Required courses in mathematics and statistics include 30-131, 30-132, 30-211, 30-240, and required courses in computer science include: 36-201, 36-202, 36-206, 36-301, 36-302, 36-313, 36-320, 36-401, 36-402, 36-405, 36-412, 20-305, and 20-428. The complete course of study is provided in the Courses of Study section of this catalogue.

Computer Science Laboratory

The Computer Science Laboratory is a modern computing facility which houses a PDP-11/44 computing system with more than 48 megabytes of disk storage. Running under the UNIX operating system, this facility supports 14 interactive terminals, an LA 120 system console, and a 300 line/minute printer. Included in the system software are a MACRO-11 assembler, a FORTRAN 77 compiler, a Pascal compiler, a text processor (NROFF), a compiler writer system (YACC), and a relational database management system (INGRESS). Together with the resources of the Academic Computer Center and the Digital Systems Laboratory of the Electrical Engineering Department, the Computer Science Laboratory provides our students firsthand experience with state-of-the-art system software and computer hardware — microprocessor to mainframe computer.

Mathematics Laboratory

The Mathematics Laboratory provides audio-visual and personal tutorial assistance for students having difficulties with freshman and sophomore level mathematics course work. Modules consisting of slides and audio cassettes review high school and beginning college level mathematics. Assistance is provided during the normal working day and during evening study periods.

This facility also serves as a source of additional materials — worksheets, workbooks, texts, journals, etc. — which have been selected to complement classroom work.

Both of these facilities have been established with funds provided by The Citadel Development Foundation.

30-100. *Non-Credit Basic Mathematics* No Credit

Offered only in the summer.

A review of high school mathematics to include basic algebraic operations and manipulations. The course is designed to assist the student in assessing readiness and to strengthen preparation for college level mathematics.

30-105. *College Mathematics I* Three Credit Hours

Prerequisite: Two years of high school algebra.

An introduction to Finite Mathematics with an emphasis on applications and the formulation of problems in mathematical language. Topics will include matrices, linear programming, sets, partitions, counting techniques. Formerly numbered 30-104.

30-106. *College Mathematics II* Three Credit Hours

Prerequisite: 30-105 or approval of department head.

Required for B.A. degree in chemistry.

An introduction to the calculus of polynomials, rational functions, exponential and logarithmic functions with an emphasis on applications to Business, and the Life and Social Sciences. Formerly numbered 30-127.

30-107. *College Mathematics III* Three Credit Hours

Prerequisite: 30-106.

Required for B.A. degree in chemistry.

A continuation of the calculus introduced in 30-106. Topics include techniques of integration, applications of integrals, improper integrals, and partial derivatives with an emphasis on applications. Formerly numbered 30-128.

30-119. *College Algebra and Trigonometry* Four Credit Hours

Required for B.A. degree in mathematics.

A modern treatment of the essential topics of college algebra and trigonometry. Required for the B.A. degree in mathematics but also offered for students whose mathematics requirement begins with calculus and whose background has been determined by the Department of Mathematics and Computer Science to be inadequate. Any student who has completed 30-119 and changes to non-science major must complete 30-106 to satisfy graduation requirements.

30-131 and 30-132. *Analytic Geometry and Calculus I and II* Four Credit Hours Each Semester

Prerequisite: 30-119 with grade of "C" or better, a satisfactory score on the Mathematics Achievement Test, Level II (see page 25), or approval of department head. For 30-132, a grade of "C" or better in 30-131 or approval of department head is required.

Required for B.S. degree in chemistry, computer science, engineering, mathematics, and physics and for the B.A. degree in mathematics.

A unified treatment of the theory and applications of plane analytical geometry and the differential and integral calculus of functions of one variable.

30-211. *Introductory Statistics* Three Credit Hours

Prerequisite: 30-105 or its equivalent.

Required for B.S. degrees in computer science and mathematics and for B.A. degree in mathematics; elective to others.

An elementary treatment of basic statistical concepts including frequency distributions, measures of central tendency and dispersion, probability, distributions (normal, etc.), sampling theory, estimation, hypothesis testing. Special emphasis is given to applications in the fields of biology, business, education, political science, and the behavioral sciences.

30-231. *Analytic Geometry and Calculus III* Four Credit Hours

Prerequisites: 30-131 and 30-132.

Required for B.S. degree in chemistry, engineering, mathematics, and physics, and for the B.A. degree in mathematics.

The analytical geometry of three dimensions, the differential and integral calculus of functions of two or more variables.

30-232. *Differential Equations* Three Credit Hours

Prerequisite: 30-107 and approval of department head or 30-132.

Required for B.S. degrees in chemistry and for the B.A. degree in mathematics.

Differential equations of the first order and degree, linear differential equations of higher order, miscellaneous differential equations, applications.

30-234. *Applied Mathematics I* Four Credit Hours

Prerequisite: 30-231.

Required for B.S. degrees in civil and electrical engineering, mathematics, and physics.

An integrated course in linear algebra and differential equations required for electrical engineering students. Topics are differential equations of the first order and degree, linear differential equations of higher order, vector spaces, bases, linear transformations, systems of linear equations, algebra of matrices, and determinants.

30-240. *Linear Algebra* Three Credit Hours

Prerequisite: 30-132.

Required for B.S. degrees in computer science and mathematics and for the B.A. degree in mathematics.

Vector spaces, systems of linear equations, basis, subspaces, algebra of matrices, inverses, determinants, orthogonal transformations, quadratic forms.

30-301. *Mathematical Models and Applications* Three Credit Hours

Prerequisite: 30-132.

Required for B.A. degree in mathematics.

An introduction to the theory and practice of building and analyzing mathematical models for real world situations encountered in the social, biological, and environmental sciences.

30-303. *Modern Algebra* Three Credit Hours

Prerequisite: 30-132.

Required for B.S. degree in mathematics.

Mathematical systems: groups, rings, integral domains, fields, vector spaces; advanced topics from linear algebra.

30-305. *Modern Geometry* Three Credit Hours

Prerequisite: 30-132.

Special topics from axiomatic geometries: Euclidean geometry, projective geometry, non-Euclidean geometry, metric projective geometry.

30-318. *Numerical Analysis* Three Credit Hours

Prerequisites: 36-301 and 30-232 or 30-234, or approval of department head. Required for B.S. degree in mathematics.

Approximation theory, roots of algebraic and transcendental equations, iterative methods, interpolation and approximation, numerical solution of differential equations, mathematical methods for the computer.

30-335. *Applied Mathematics II* Three Credit Hours

Prerequisite: 30-232, 30-234, or approval of department head.

Required for B.S. degrees in electrical engineering, mathematics, and physics.

Advanced topics in differential equations and multi-dimensional calculus. Topics include power series solution of differential equations, Laplace transformations, line and surface integrals. Fourier series, and an introduction to partial differential equations.

30-403 and 30-404. *Introduction to Analysis I and II* Three Credit Hours Each Semester

Prerequisite: 30-231.

Required for B.S. degree in mathematics.

Dedekind cuts, completeness, perfect sets, cantor sets, metric spaces, Heine-Borel theorem, sequences, series, continuity, differentation, implicit function theorem.

30-405. *Probability and Statistics* Three Credit Hours

Prerequisites: 30-132 and 30-211.

Combinatorial problems, discrete and absolutely continuous random variables, law of large numbers, central limit theorem, estimation, hypothesis testing, confidence intervals, maximum likelihood methods, non-parametric methods and robustness.

30-411. *Number Theory* Three Credit Hours

Prerequisite: 30-132.

The Euclidean algorithm, prime and composite integers, elementary Diophantine equations, Pythagorean triples, Euler's phi-functions, congruences, Euler-Fermat theorems, exponents and primitive roots, quadratic residues.

30-412. *History of Mathematics* Three Credit Hours

Prerequisite: 30-132.

A survey of the development of mathematics from the time of the ancients to the present, analysis of causes for the retardation of the advancement of mathematics in different centuries, selected readings to show the contributions of mathematics to the development of science.

30-414. *Topology* Three Credit Hours

Corequisite or Prerequisite: 30-303.

Set axioms, functions, relations, well-ordering, topological spaces, continuity, separations, metric spaces, compactness, connectedness.

30-415 and 30-416. *Reading Courses* Three Credit Hours Each Semester

Prerequisite: exceptional ability and background, and approval of department head.

Directed reading on assigned topics in mathematics, weekly conferences with the instructor, and a formal paper.

30-420. *Senior Research Project* Three Credit Hours

Prerequisite: exceptional ability and background, and approval of department head.

A research project and formal paper. Recommended for students planning graduate work. Approval for enrollment based on capability of applicant and the acceptance of a written proposal.

30-422. *Complex Analysis* Three Credit Hours

Prerequisite: 30-335 or approval of department head.

Required for B.S. degrees in mathematics and physics.

Topics from complex function theory: complex differentiation and integration, Cauchy theorem, complex series and uniform convergence, harmonic functions.

Computer Science

36-115. *Introduction to Computer Applications* Three Credit Hours

An introduction to the use of microcomputers through the BASIC Language, word processing, spred sheets, and data bases. Applications selected from the social sciences.

36-201. *Introduction to Computer Science I* Three Credit Hours

Prerequisites: 30-106 or 30-131 or the equivalent.

An introduction to problem solving and algorithm development using PASCAL. Topics include computer organization, operating systems, structured programming, and program modularization. Assignments involve designing, coding, debugging, and documenting computer programs. Students may not receive credit for both 36-201 and 36-215.

36-202. *Introduction to Computer Science II* Three Credit Hours

Prerequisite: 36-201 with a grade of C or better or approval of department head.

A continuation of the study of PASCAL begun in 36-201. Advanced programming concepts, including string processing, list processing, searching and sorting, recursion, and user-defined data types and data structures. Emphasis on good programming style and data structuring techniques.

36-206. *Introduction to Discrete Structures* Three Credit Hours

Prerequisite or corequisite: 36-201 and one semester of calculus.

Required for B.S. degrees in computer science and mathematics and B.A. degree in mathematics.

Review of set algebra including relations and functions. Ordered algebraic structures. Elements of combinatorial mathematics and the theory of graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science.

36-207. *Introduction to FORTRAN* One Credit Hour

Required of all chemistry sophomores; open to others.

Basic programming in FORTRAN. Practice in flowcharting, writing, and debugging programs with emphasis on scientific applications.

Lecture: one hour; laboratory: one hour.

36-215. *Introduction to Applied Programming* Three Credit Hours

Prerequisite: 30-105.

Required for all business administration majors.

An introduction to computers and the PASCAL language. Programming applications in the management and social sciences to include available software packages. Emphasis on sound programming techniques, top-down design, and modular structure. Students may not receive credit for both 36-201 and 36-215.

36-301. *Applied Numerical Methods* Three Credit Hours

Prerequisites: 36-201, 36-207, or 20-206 and 30-107 or 30-132.

Required for B.S. degrees in mathematics and computer science.

Analysis of computational problems and the development of computer techniques for their solution. An introduction to numerical methods, error analysis, linear systems of equations, zeroes of functions, numerical differentiation and integration.

36-302. *Computer Organization and Programming* Three Credit Hours

Prerequisite: 36-202.

Required for B.S. degree in computer science.

A detailed introduction to computer organization and assembly language programming. The assembly process including linking and loading. Topics include machine representation of information, instruction codes, addressing techniques, macros, and subroutines.

36-306. *Management Information System* Three Credit Hours

Prerequisite: 36-215 or 36-201.

Computer-oriented information systems. Data collection, file organization, directory construction, and search techniques. On-line information retrieval, retrieval models and processes.

Designed as a follow-up to 36-215. Applications in the management and social sciences are presented in a microcomputer environment.

36-311 and 36-312. *Methods of Operations Research* Three Credit Hours Each Semester

Prerequisites for 36-311 and 36-312: Two semesters of calculus and knowledge of a high level programming language.

Prerequisites for 36-312: One semester of probability and statistics.

Applications and elementary theory of deterministic models in operations research to include linear programming and the simplex method, transportation and assignment problems, network analysis, game theory, integer programming, and sensitivity analysis; applications and elementary theory of probabilistic models in operations research to include queueing models, simulation, inventory models, decision analysis, and reliability.

36-313. *Introduction to COBOL* Three Credit Hours

Required for B.S. degree in computer science.

Basic programming in COBOL (structured approach); practice in writing and debugging programs with applications in business and mathematics.

36-320. *File Organization and Database Design* Three Credit Hours

Prerequisite: 36-202.

Required for the B.S. degree in computer science.

Topics include elementary data structures and file processing techniques; sequential, indexed sequential, and random access files; database concepts; hierarchical, network, and relational data models; query facilities.

36-401. *Data Structures* Three Credit Hours

Prerequisites: 36-202 and 36-206.

Required for B.S. degree in computer science.

Formal specificiation of data structures, implementation of these structures in programming languages, and analysis of algorithms. Topics include arrays, stacks, queues, linked lists, trees, string processing, sorting techniques, and file structures.

36-402. *Programming Languages* Three Credit Hours

Prerequisite: 36-202 or approval of department head.

Required for B.S. degree in computer science.

Programming language constructs emphasizes the run-time behavior of programs. Formal definition of programming languages including specification of syntax and semantics. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, and coroutines/

Parameter passing techniques. Control structures and data flow. Compilation versus interpretation of high level programming languages.

36-405. *Operating Systems and Computer Architecture* Three Credit Hours

Prerequisite: 36-302 or approval of department head.

Required for B.S. degree in computer science.

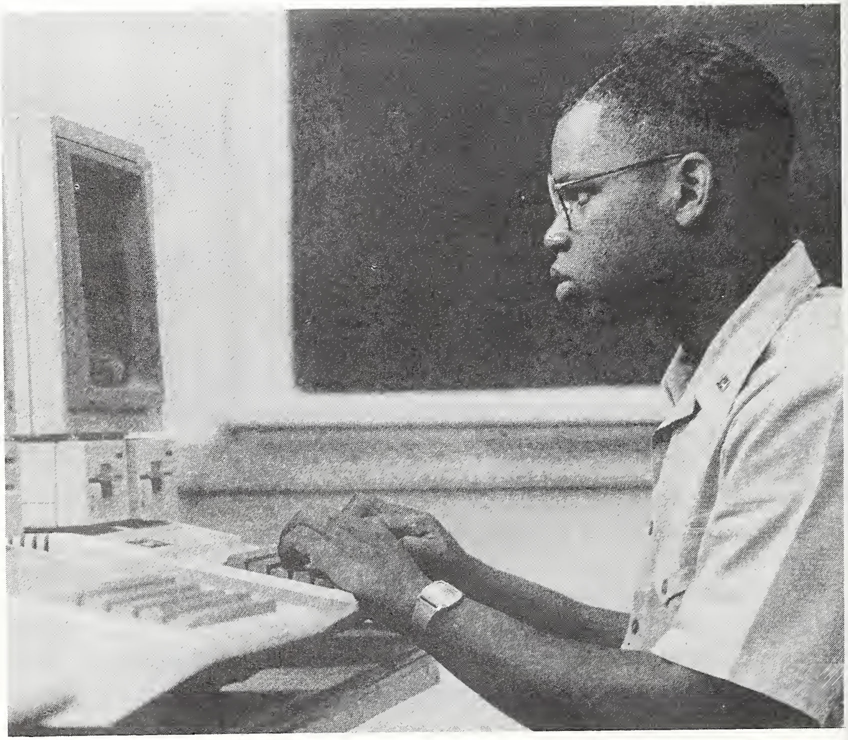
Topics will include instruction sets, I/O and interrupt structure, addressing schemes, microprogramming, procedure implementation, memory management, process management, system structure and evaluation, and recovery procedures.

36-412. *Principles of Compiler Design* Three Credit Hours

Prerequisites: 36-401 and 36-402.

Required for B.S. degree in computer science.

Grammars, languages, and their syntax and semantics. Finite state grammars and recognizers. Lexical techniques, syntax directed translation, attribute grammars, and code generation.



Department of Military Science

rofessor: Richards
ssistant Professors: Falkenbury, Finkenkeller, Haltiwanger, Howard, Labor, Lester, Lovin, Masterson, Richardson, Schroeder

The Army ROTC program of instruction at The Citadel is geared oward teaching "hands on skills" that are required of the new second ieutenant in the active Army, Army Reserve, or Army National Guard. nstruction at all levels centers around teaching combat techniques, eadership, physical training, weapons, general military subjects, tactics, attlefield survival, and the Army opportunity. In addition to the core urriculum described, Army ROTC cadets at The Citadel are provided he opportunity to learn advanced skills as members of the cadet airborne anger company. Selected cadets also have the opportunity to attend the rmy's Airborne, Air Assault, and Ranger Schools as well as to serve as third lieutenants" with active Army and Reserve units.

Military science is a four-year program of instruction, divided into a wo-year basic program and a two-year advanced program. The first year MS I) addresses the role of the individual soldier through instruction and ractical training in the areas of physical training, marksmanship, appelling, first aid, land navigation, U.S. weapons, and leadership. The econd year (MS II) builds upon the first through the development of ore advanced individual skills such as the compass; nuclear, biological, nd chemical equipment; physical training; the principles of security and ntelligence; and small unit tactics. In addition, the cadet continues his tudy of leadership at a more advanced level.

The first year of the advanced course (MS III) is directed toward lacing the final touches on the contract cadet for his performance at dvanced camp during the summer between his junior and senior year. The curriculum centers around instruction and practical training in land avigation and the use of the compass, military skills, the principles and techniques of squad and platoon operations, the principles of organizational leadership, the branches of the Army, U.S. Army weapons systems, and leading physical conditioning activities. At the conclusion of the junior year, those cadets who have been selected for contract will attend a six-week advanced camp at Fort Bragg, North Carolina. Camp is a completely performance-oriented phase of instruction consisting of range firing utilizing all the U.S. Army weapons of the combined arms team, field training exercises, hands-on instruction utilizing U.S. Army equipment, and leadership training both in a garrison and field environment.

The final year of the advanced program (MS IV) consists of instruction in solving contemporary leadership problems; the principles of military justice; the techniques of military writing; the evolution of current tactics, weapons, and equipment; the composition of threat tactics and organizations; precommissioning seminars; and the application of combined arms tactics.

A prerequisite for entry into each level of Military Science instruction is the successful completion of the previous semester's course of instruction. While transfer credit may be granted, no transfers will be accepted without prior written approval of the department head, PMS, or his authorized representative.

Course of Instruction

8-101. *Introduction to Individual Skills* One Credit Hour
(First Semester—Fourth Class Year)

The first semester lays the foundation for the next four years of instruction. It concentrates on building a cadet's confidence in himself and Army weapons and equipment. It begins with an explanation of ROTC and the organization of the U.S. Army. The second block of instruction covers performance-oriented training and provides the cadet the opportunity to handle and operate U.S. Army weapons. The remaining time provides the cadet opportunities to learn and apply first aid skills.

8-102. *Leadership and Individual Skills* One Credit Hour
(Second Semester—Fourth Class Year)

The cadet is exposed to an introduction of the theory of leadership concentrating on the traits of a leader and the principles of leadership with a practice exercise utilizing the skills acquired in the classroom. The highlight of the semester is the rifle range and qualification with the M-16 rifle. Finally, one block of instruction centers around topography.

8-201. *Individual Combat Techniques* Two Credit Hours
(First Semester—Third Class Year)

Here the cadet acquires additional basic skills in individual combat techniques. Nuclear, chemical and biological warfare further enhances these combat skills. Map reading and security and intelligence training further improve the individual's skills.

8-202. *Introduction to Small-Unit Operations, Leadership, Army Opportunity* Two Credit Hours
(Second Semester—Third Class Year)

The second semester expands on these skills by integrating them into squad combat techniques. Leadership theory shows how to employ these techniques. Branches of the Army and commissioning options are taught to give the cadet an appreciation of the Army's overall function.

8-301. *Leadership Theory, Military Skills, and Branches of the Army* Three Credit Hours
(First Semester—Second Class Year)

The curriculum for the juniors is directed at preparing them for their performance at Advanced Camp. In the first semester the cadets receives additional instruction in leadership, nuclear, biological, and chemical warfare, first aid, and branches of the Army. Further instruction is given in fire support and communications.

8-302. *Squad and Platoon Tactics, Land Navigation, and Advanced Military Skills* Two Credit Hours
(Second Semester—Second Class Year)

The second semester concentrates on final preparation for Fort Bragg and on teaching skills in a performance-oriented mode. The cadet learns advanced Squad and Platoon Tactics, Land Navigation, and Advanced Military Skills. Those cadets who have earned contracts will participate in additional leadership training, physical training, and some field training exercises.

8-401. *Contemporary Military Subjects, Ethics and Professionalism and Professional Military Development* Three Credit Hours
(First Semester—Senior Year)

The main direction of senior year is to prepare the cadet for his first assignment as a second lieutenant. The cadet learns how to plan and conduct military training. He also receives instruction on the Army logistical system and precommissioning requirements. A highlight of this semester is a block of instruction examining the ethics and professionalism of the officer corps.

8-402. *Professional Military Development* Two Credit Hours
(Second Semester—Senior Year)

The cadet's final semester centers around military law and additional skills required as a professional officer. The capstone of the senior year is precommissioning activities which represents the cadet's final preparation before entrance into the officer corps.

Department of Modern Languages

Professor: Johnson
Associate Professors: Frohlich, Staley
Assistant Professors: Pieper, Gundel, DeMille, Emory, McRae, Eesley

From Roman antiquity to the present day, education in the West has had two principal components: the one consisting of practical learning for utilitarian or economic ends, and the other designed to help free men understand the world in which they live and their own places in it. The first part makes a man a useful member of society; the second enhances the fundamental value and quality of life itself and makes it worth living.

The enormous expansion of specialized knowledge and technology during the past two hundred years has made the skills needed by society increasingly complex and increasingly a matter of professional or other special, in-job training after the college years. It has also made liberal education—the general understanding which a free man should achieve of the larger world beyond the field of his own personal career—an indispensable foundation upon which the practical skills required for business or the professions have to be built.

The curriculum for majors in the Department of Modern Languages provides a thorough, liberal education through the study of foreign languages, of the peoples who have spoken them, and of the classic literatures which their best minds have created. We teach our students how to think and express themselves effectively in their own language, and how to comprehend and emulate those same accomplishments in the finest writers and thinkers of our languages. Besides the direct benefit of this experience in liberal education, there is also the practical advantage of learning to understand and use at least one foreign language, an important skill which is directly transferable to a wide variety of careers after graduation.

Most of the world thinks and carries on its business in other languages than English; and the whole population of the United States is less than five percent of the total world population, a percentage that has been shrinking steadily for decades and that will predictably continue to diminish in the future. The national need for Americans in every walk of life to be familiar with foreign languages and foreign peoples increases in direct proportion as our minority membership in the world family of nations contracts. It is especially fitting that this need be met by cadets at The Citadel, where the tradition of dedicated response to national needs is fundamental.

The language major elects one of the several languages taught in the department and its literature as his primary subject of study. He may make this choice as a freshman if he wishes, but is not obligated to do so until the sophomore year. The program for majoring in modern languages consists of 36 credit hours of course work according to the following plan.

Plan of Undergraduate Major

Twenty-seven credit hours of course work in *one* language and at the 300- and 400-levels. For French and Spanish majors these must include 301 and 302; for German majors these must include 311 and 312.

Six credit hours of Approved Electives must be chosen in close consultation with the major professor and with the approval of the department head.

Three credit hours in 90-300, *Introduction to Linguistics,* is required.

Note that majors who are qualified may by-pass Elementary (101-102) and Intermediate (201-202) courses in their chosen major language. No credit is awarded for the by-passed course or courses; electives must be taken to replace the by-passed courses.

Credit for Study Abroad

The Citadel offers a summer program for French in Paris and for Spanish in Madrid. Credit may be obtained for courses taken abroad during the summer or the regular school year. Such work must have the prior approval of the head of the Department of Modern Languages from whom details of this option are available.

Prerequisites

Courses in instruction in *languages* must be taken consecutively. That is, a course numbered 101 precedes and is prerequisite to 102; 102 is prerequisite to 201; and 201 is prerequisite to 202.

Graduation requirements in languages may be satisfied only by appropriate sequences of courses in the same language. Thus, French 101-102 must be followed by French 201-202 (not German, Russian, or Spanish 201-202); and so forth.

Courses numbered 300 and above in a given language have, unless otherwise stated, 202 in that language as a prerequisite.

COURSES OF STUDY

General Courses

90-300. *Introduction to Linguistics* Three Credit Hours

Open to all students; required for language majors.

A survey of the history of languages and linguistics and a study of the components of human speech: phonetics, phonology, morphology; grammar, syntax, semantics; semiology, writing, literature.

Classical Languages

Offered only when demand warrants.

91-101 and 91-102. *Elementary Latin* Three Credit Hours Each Semester

Greek Language

Offered only when demand warrants.

91-101. *Beginning Greek, First Course* Three Credit Hours

Fundamentals of the Greek language: alphabet, pronunciation, grammar, and vocabulary combined with practice in reading simple Greek prose.

92-102. *Beginning Greek, Second Course* Three Credit Hours

Grammar, vocabulary, and introductory reading, including selections from Herodotus.

92-201. *Intermediate Greek, First Course* Three Credit Hours

Review of the major grammatical principles of Greek, and reading in several classical works, including Plato and the New Testament.

92-202. *Intermediate Greek, Second Course* Three Credit Hours

Reading in either the *Iliad* or *Odyssey* of Homer.

German Language and Literature

93-101 and 93-102. *Elementary German* Three Credit Hours Each Semester

Pronunciation and the elements of German grammar and syntax; written and oral exercises; development of translation skills. Practice in the language laboratory.

93-201 and 93-202. *Intermediate German* Three Credit Hours Each Semester

Special attention to sentence structure; oral and written exercises. Translation of cultural texts; practice in the language laboratory.

93-303. *Readings in German Civilization* Three Credit Hours

A broad survey of German culture (architecture, painting, sculpture, music, cuisine, etc.) and society from prehistoric times to the present. Extensive use of audiovisual materials, occasional field trips.

93-307. *Business German* Three Credit Hours

Introduction to the language of economics, banking, commerce, correspondence, sales, import-export, transportation, and corporations in Germany.

93-311 and 93-312. *Intensive Conversational German* Six Credit Hours Each Semester

Prerequisite: 93-202 with grade of "C" or better, or permission of the department head.

Intensive oral practice in class and in the language laboratory in modern, colloquial German. Written work restricted mainly to the composition of practical dialogues and short narratives. Lecture will be held in two consecutive time periods three times a week. In addition, language laboratory practice is mandatory for a minimum of three periods per week.

93-421. *German Literature up to the Reformation* Three Credit Hours

An introduction to the significant authors, works, and movements in German literature from the *Hildebrandslied* (ca. 850) through the Reformation (ca. 1550) as seen in the context of the cultural, political, and intellectual circumstances of this period.

93-422. *German Literature from the Baroque to Classicism* Three Credit Hours

A survey of German literature from about 1500 to 1800, with major emphasis on the significant works of this period, especially of the Sturm und Drang and the Classical periods.

93-423. *German Literature of the Nineteenth Century* — Three Credit Hours

An introduction to the major writers, movements, and genres of German literature of this period, but especially the Romantic movement and the development of the Novelle.

93-424. *German Literature of the Twentieth Century* — Three Credit Hours

A survey of German literature since about 1890 (Naturalism) with particular emphasis on the more recent authors and trends, and with a view to understanding the interrelations among social conditions, political events, intellectual climate, and the literature of the time.

93-450. *Undergraduate Seminar: Masters of German Literature* — Three Credit Hours

Study and interpretation of the works of one notable German author with a view to understanding his contribution to and influence on German life and letters.

This course formerly was numbered 93-214.

French Language and Literature

94-101 and 94-102. *Elementary French* — Three Credit Hours Each Semester

Basic structure of French learned through understanding, reading, writing, and speaking simple French sentences. Attention to pronunciation and vocabulary expansion. Practice in the language laboratory.

94-201 and 94-202. *Intermediate French* — Three Credit Hours Each Semester

Review of grammar with emphasis on sentence patterns; reading and translation.

94-203 and 94-204. *Intermediate French Composition and Conversation* — Three Credit Hours Each Semester

Prerequisite: 94-102, or equivalent.

An intensive, systematic study of grammar and development of speaking and writing skills through readings, discussions, and compositions. May be taken in lieu of 94-201 and 94-202 to satisfy the language requirement. Offered during summer program in France.

94-301 and 94-302. *Advanced French Composition and Conversation* Three Credit Hours Each Semester

Prerequisite: 94-202 with grade of "C" or better, or permission of the department head.

Further development of writing and speaking skills.

94-303. *Readings in French Civilization* Three Credit Hours

A broad survey of French culture (architecture, painting, sculpture, music, cuisine, etc.) and society from prehistoric times to the present. Extensive use of audiovisual materials, occasional field trips.

94-304. *Readings in French Literature* Three Credit Hours

A course designed to introduce the student to the basics of French writing and literary analysis and to improve his reading ability through the use of carefully selected, graded readings in modern French.

94-307. *Business French* Three Credit Hours

Introduction to the language of economics, banking, commerce, correspondence, sales, import-export, transportation, and corporations in France.

94-390. *Special Topics in Contemporary French Culture* Three Credit Hours

A survey of current trends in art, architecture, music, cuisine, film, and literature, as well as in popular culture, in France. Visits to museums, concerts, theater, etc. Weekly journal of cultural and cross-cultural experiences. Offered during summer program in France.

94-391. *Special Topics in Contemporary French Usage* Three Credit Hours

A course designed to acquaint students with the French of today as a language in evolution; particular attention to current usage of slang, jargon, and neologisms. Offered during summer program in France.

94-421. *French Literature of the Middle Ages and Renaissance* Three Credit Hours

A study of representative works composed in the Middle Ages and Renaissance, in modern French translation.

94-421. *French Classicism and Enlightenment* Three Credit Hours

A study of the principal writers of the seventeenth and eighteenth centuries in France. Major figures: Corneille, Moliere, Racine, Pascal, La Fontaine, La Bruyere, Voltaire, Diderot, Rousseau.

94-423. *French Literature of the Nineteenth Century* Three Credit Hours

A study of the works representative of Romanticism, Realism, Naturalism, and Symbolism, with special emphasis on developments in he novel and lyric poetry.

94-424. *French Literature of the Twentieth Century* Three Credit Hours

A study of the major writers and literary movements—Surrealism, Modernism, Existentialism, Theatre of the Absurd, Nouveau Roman—rom the turn of the century to the present.

94-450. *Undergraduate Seminar: Studies in Individual Authors* Three Credit Hours

A comprehensive study of the work of one major French author with a view to understanding its relation to the body of French literature.

This course formerly was numbered 94-214.

Italian Language

Offered only when demand warrants.

95-101 and 95-102. *Elementary Italian* Three Credit Hours Each Semester

95-201 and 95-202. *Intermediate Italian* Three Credit Hours Each Semester

Review of grammar, readings in Italian literature, conversation, and writing.

Spanish Language and Literature

96-101. *Elementary Spanish, First Course* Three Credit Hours

Exercise in pronunciation; elements of reading, writing, and simple conversation. Practice in the language laboratory.

96-102. *Elementary Spanish, Second Course* Three Credit Hours

Vocabulary-building, grammar, conversation, and cultural readings, Practice in the language laboratory.

96-201. *Intermediate Spanish, First Course* Three Credit Hours

Review of grammar, selected readings, and practice in the sound aboratory.

96-202. *Intermediate Spanish, Second Course* Three Credit Hours

Readings in literature, history, etc., involving use of dictionaries. Practice in the sound laboratory.

96-203 and 96-204. *Intermediate Spanish Composition and Conversation*

Prerequisite: 96-102 (or equivalent) and permission of professor.

Intensive course in oral and written Spanish; to be taken concurrently, in lieu of 96-201 and 96-202. Offered only during summer program in Spain.

96-301 and 96-302. *Advanced Spanish Composition and Conversation* Three Credit Hours Each Semester

Prerequisite: 96-202 with a grade of "C" or better, or permission of the department head.

Conducted mostly in Spanish. Oral and written reports on cultural topics; complete review of verb tenses.

96-303. *Readings in Spanish Civilization* Three Credit Hours

A broad survey of the culture of Spain (architecture, painting, sculpture, music, cuisine, etc.) and society from prehistoric times to the present. Extensive use of audiovisual materials, occasional field trips.

96-304. *Readings in Spanish American Civilization* Three Credit Hours

A general survey of the culture of Spanish America from Pre-Columbian times to the present (architecture, painting, sculpture, music, cuisine, etc., as well as social and political developments). Extensive use of audiovisual materials, occasional field trips.

96-307. *Business Spanish* Three Credit Hours

Introduction to the language of economics, banking, commerce, correspondence, sales, import-export, and corporations in Spain and Spanish America.

96-321 and 96-322. *Spanish American Literature* Three Credit Hours Each Semester

Most of this course will focus on study of the major Spanish American writers of the 1960s who have achieved world recognition: Borges, Fuentes, Cortazar, Vargas Llosa, and Garcia Marquez. There will also be an analysis of Spanish American writers who imitated earlier Peninsular Spanish American currents such as Pre-Columbian literature and such themes as the Mexican Revolution, the gaucho, and civilization versus barbarism.

These courses formerly were numbered 96-217 and 96-218.

96-390 and 96-391. *Special Topics in the Spanish Idiom and Culture*

Prerequisite: 96-202 (or equivalent) and permission of professor.

In-depth study of contemporary Spanish culture by direct participation n Spanish society. Special activities and written work assigned according to student need and current availability. Offered only during summer program in Spain.

96-420. *Spanish Literature of the Middle Ages and Renaissance* Three Credit Hours
Fall Semester Only

The history and interpretation of the first works in the Spanish tradition. The literary history of the period will be surveyed and llustrated with selected texts.

This course formerly was numbered 96-321.

96-421. *The Golden Age I* Three Credit Hours

Surveys of the masterpieces of Spain's Golden Age of Literature. Development of the *comedia.* The literary history will be illustrated by selected works of Lope de Vega, Tirso de Molina, Ruiz de Alarcon, Calderon de la Barca, and other seventeenth century playwrights.

This course formerly was numbered 96-211.

96-422. *The Golden Age II* Three Credit Hours

The literature of the late sixteenth and seventeenth centuries in the Spanish Peninsula. A study of the character of Don Quixote, the first dramaticization of the Don Juan legend, and the appearance of the *picaro.*

This course formerly was numbered 96-212.

96-423. *Nineteenth Century Literature of Spain* Three Credit Hours

A survey of Romanticism and its sequel, the movements of Realism and Naturalism in the novel. The literary history will be illustrated with selected texts.

This course formerly was numbered 96-215.

96-424. *Twentieth Century Literature of Spain* Three Credit Hours

Literary trends and authors since the turn of the century. The course will consider critics such as Unamuno, thinkers such as Ortega y Gasset, Nobel prize winners such as Benavente and Jimenez, recent authors such as Garcia Lorca, and current writers such as Alberti.

This course formerly was numbered 96-216.

96-450. *Undergraduate Seminar: Individual Spanish Authors* Three Credit Hours

A comprehensive study and interpretation of one major Spanish author's work.

This course formerly was numbered 96-214.

Russian Language

97-101 and 97-102. *Modern Russian I* Three Credit Hours Each Semester

Basic, conversational Russian, stressing verbal communication through the learning of simple, relatively brief dialogues including instruction in basic grammar and practice in reading and writing skills. Practice with taped materials essential.

97-201 and 97-202. *Modern Russian II* Three Credit Hours Each Semester

Continuation of the goals of *Modern Russian I* with increased emphasis on written communication and reading narrative selections and on language laboratory practice.

Directed Individual Study

93-341 and 93-342. *German Literature and Literature* (Junior Year) Three Credit Hours Each Semester

These courses formerly were numbered 93-333 and 93-334.

93-441 and 93-442. *German Language and Literature* (Senior Year) Three Credit Hours Each Semester

These courses formerly were numbered 93-444 and 93-445.

94-341 and 93-342. *French Language and Literature* (Junior Year) Three Credit Hours Each Semester

These courses formerly were numbered 94-333 and 94-334.

94-441 and 94-442. *French Language and Literature* (Senior Year) Three Credit Hours Each Semester

These courses formerly were numbered 94-444 and 94-445.

96-341 and 96-342. *Spanish Language and Literature* (Junior Year) Three Credit Hours Each Semester

These courses formerly were numbered 96-333 and 96-334.

96-441 and 96-42. *Spanish Language and Literature* (Senior Year) Three Credit Hours Each Semester

These courses formerly were numbered 96-444 and 96-445.

Directed Individual Study courses enable students with special interests, uitable preparation, and high academic standing to receive instruction nd guidance in selected subjects which are not otherwise treated in the epartment's regularly scheduled courses of instruction. Directed Inividual Study courses may not be repeated, and are open only to juniors nd seniors with the assent of the instructor and the permission of the epartment head.

Department of Naval Science

Professor: Smith
Assistant Professors: Mack, Downing, Bonewald, Powell, Collins, Mahoney, Underdahl, Crouse, McNally

The Department of Naval Science course of instruction is designed to provide young men with the basic professional knowledge and leadership skills needed to become Navy and Marine Corps officers. In the initial two years all students receive an orientation to the various branches of the Navy and Marine Corps, followed by courses in basic naval engineering and weapons and an overview of seapower.

Students may receive their final two years of instruction in either Navy or Marine Corps courses. Navy students study seamanship and the art of navigation; Marine option students study the historical development of warfare and amphibious operations. Both options conclude with practical leadership training designed as final preparation for assuming the responsibilities of a junior officer in the Navy or Marine Corps.

Practical training in sailing and shiphandling and frequent visits to local Navy and Marine Corps facilities are provided to complement classroom training.

Sequence of Naval Science Courses

Fourth Class Year
  All Naval cadets
    9-101 (Introduction to Naval Science)
    9-102 (Naval Ships Systems I (Engineering))

Third Class Year
  All Naval cadets
    9-201 (Naval Ships Systems II (Weapons))
    9-202 (Seapower and Maritime Affairs)

Second Class Year
- Candidates for U.S. Navy commissions
  - 9-301 (Navigation)
  - 9-302 (Naval Operations)
  - 9-312 (Shiphandling Laboratory)
- Candidates for U.S. Marine Corps commissions
  - 9-303 (Evolution of Warfare I)
  - 9-304 (Evolution of Warfare II)

First Class Year
- Candidates for U.S. Navy commissions
  - 9-401 (Naval Leadership and Management I)
  - 9-402 (Naval Leadership and Management II)
- Candidates for U.S. Marine Corps commission
  - 9-403 (Amphibious Warfare)
  - 9-404 (The Marine Company Grade Officer)

Description of Courses

9-101. *Introduction to Naval Science* One Credit Hour

This course provides the student with a basic understanding of the mission, organization, regulations, and broad warfare components of both the Navy and Marine Corps. Included is an overview of officer and enlisted rank and rating structures, procurement and recruitment, training and education, promotion and advancement, retirement policies, courtesy and customs, discipline, leadership, ship's nomenclature, and challenges facing today's Navy and Marine Corps officers. (Navy and Marine faculty taught.)

9-102. *Naval Ships Systems (Engineering)* Three Credit Hours

This course provides the student with a basic understanding of the types, structure, and purpose of naval ships. Details of ship compartmentation, propulsion systems, auxiliary power systems, interior communications, ship design, and ship stability characteristics are examined. (Navy faculty taught).

9-201. *Naval Ships Systems II (Weapons)* Two Credit Hours

This course provides the student with a basic understanding of the theory and applicable principles relating to the operation of naval weapons systems. Details of weapons coverage, by type, and fire-control systems, including capabilities and limitations, target acquisition, identification and tracking of targets, trajectory principles, and basics of naval ordnance are examined. Principles of the use of electroinc components, computer functions, and sound energy are included. (Navy faculty taught.)

9-202. *Seapower and Maritime Affairs* One Credit Hour

This course provides the student with a basic knowledge of seapower and maritime affairs. It is oriented toward the general concept of seapower, including the United States Marine Corps and Merchant Marine, the role of various warfare components of the Navy and Marine Corps in supporting the Navy's mission, the application of seapower as an instrument of national power, and a comparative study of United States and Soviet Naval strategies. (Navy and Marine faculty taught.)

9-301. *Navigation* Three Credit Hours

This course provides the student with a working knowledge of the theory and practice of piloting and celestial navigation. Includes radar navigation, lines of position, fixes, complete site reduction by *Hydrographic Office Publication 229* and the *Nautical Almanac,* and a brief introduction to electronic navigation systems. Practice applications are stressed in weekly exercises. (Navy faculty taught.)

9-302. *Naval Operations* Three Credit Hours

Prerequisite: 9-301.

This course provides the student with a detailed survey of the Rules of the Nautical Road and the theory and use of maneuvering boards for solution of relative motion problems. Also introduced are various other topics, including weather, shiphandling, and naval communications. (Navy faculty taught.)

9-303. *Evolution of Warfare I* Three Credit Hours

This course provides the student with a general knowledge of the art and concepts of warfare and its evolution from the beginning of recorded history to the present. Included are the considerations of the influence that leadership, political, economic, sociological, and technological factors have had on warfare and the theoretical principles behind modern strategy and tactics. (Marine faculty taught.)

9-304. *Evolution of Warfare II* Three Credit Hours

Prerequisite: 9-303.

This course enables the student to acquire a working knowledge of the more practical aspects of warfare and the United States Marine Corps. The general principles of warfare addressed in 9-303 are considered as they relate to the small unit level. Tactical aspects of offensive and defensive combat are examined in detail. The student is given the opportunity to master skills required of the small unit leader with an emphasis on land navigation. (Marine faculty taught.)

9-312. *Shiphandling Laboratory* No Credit

This course provides the student with a basic understanding of the controllable and uncontrollable forces involved in shiphandling. The student will have the opportunity to practice mooring, man overboard drills, and anchoring in a realistic training environment. (Navy faculty taught.)

9-401. *Naval Leadership and Management I* Two Credit Hours

This course provides the student with a basic understanding of the fundamental concepts and principles of naval leadership and management. Theoretical aspects of the management functions and processes are examined, and their applications to the naval profession are discussed. In addition, motivation and motivational theories, counseling techniques, and effective communicative skills are studied and applied to naval leadership and management roles. This course is taught using lectures, experimental exercises, case studies, self-study exercises, and role-playing exercises. The goal of this course is to provide students with the fundamental concepts, principles, and sources of information necessary to establish a sound basis for their initial performance and future growth as junior officers.

This course also provides students with the values and motivation which prepare them for service with the sense of honor and integrity required of a commissioned naval officer. (Navy faculty taught.)

9-402. *Naval Leadership and Management II* One Credit Hour

This course provides the student with guidelines for assuming the duties and responsibilities as a junior Navy officer during his initial tour of duty following graduation and commissioning. In addition, this course familiarizes the student with and helps him develop an understanding of the duties and responsibilities of the junior naval officer and shipboard division officer in the following leadership areas: human resources management, personnel management, material management, and division discipline administration. This course also prepares the student for the personal and professional responsibilities that he will encounter immediately upon commissioning. This is the final course in the Naval ROTC curriculum, and it synthesizes the managerial and professional competencies developed by the students in the previous summer's at-sea training and previous naval science courses. This course provides a capstone in all major areas of naval leadership immediately prior to commissioning. (Navy faculty taught.)

9-403. *Amphibious Warfare* Three Credit Hours

This course provides the student with a basic understanding of the concept of projecting seapower ashore through use of both waterborne and helicopterborne amphibious forces. Details concerning the evolution of amphibious warfare as an element of naval power and instrument of national strategy combined with applicable principles and techniques of conducting amphibious warfare are examined. (Marine faculty taught.)

9-404. *The Marine Company Grade Officer* No Credit

This course provides the student with a basic understanding of the company grade officer's responsibilities within the Marine Corps, emphasizing his role as a junior commander and staff officer, and concentrating upon command and staff relationships, effective coordination, administration, training, counseling, military justice, and other Marine officer responsibilities. (Marine faculty taught.)

Department of Physical Education

Professors: Ezell, Feigl, Smyth
Associate Professors: Styles, Teague, Wilson
Instructor: Carter

The purpose of the Department of Physical Education is to provide experiences which will lead to skills, knowledge, and attitudes within the domains of human movement and healthful living, contributing to an improved quality of life. These experiences are available through four distinct yet interacting programs.

Required Physical Education Program

The primary objective of the RPE program is to provide basic instruction in adult physical fitness and recreational sports which will be of both immediate and lasting value for each cadet. **All cadets are required to complete four semesters of RPE.**

Fourthclassmen (Freshmen)

All freshman cadets must in the fall semester successfully complete 57-101.

57-101. *Foundations of Physical Education*
The purpose of this course is to provide basic information in the areas of exercise physiology, diet and weight control, and various exercise programs which will aid the cadet in making intelligent decisions regarding future participation in physical activity.
Lecture: one hour; laboratory: one hour.

During the spring semester each freshman cadet must enroll in one of the following 100 level and selected 200 level courses in accordance with his interest and/or skill level.

57-103. *Survival Swimming*

A beginning swimming course designed for adults who are classified as non-swimmers or poor swimmers. Required of all cadets who do not pass the test of minimal swimming ability administered by the Department of Physical Education.

57-105. *Intermediate Swimming*

A course consisting of instruction in the five basic swimming strokes, self-rescue, and basic lifesaving techniques.

57-106. *Beginning Wrestling*

A course which introduces the student to the basic skills, rules, and strategies of amateur wrestling.

57-107. *Team Handball*

A course which combines features of soccer and basketball into a fast-moving, exciting team game. Emphasis is placed on learning the individual skills and strategies which comprise a coordinated team effort.

57-108. *Tumbling and Apparatus*

A course providing instruction in the basic skills in seven events (tumbling, side horse, still rings, vaulting, parallel bars, horizontal bars, and trampoline) leading to the development of routines of these events along with safety, spotting, rules, and terminology.

57-109. *Fundamental Basketball*

This course provides instruction in basic skills such as dribbling, passing, shooting, and rebounding, and the use of these skills and strategies in a team effort.

57-110. *Individualized Physical Education*

A course providing an individualized approach to prerequisite sports components including, but not limited to, cardiovascular and muscular endurance, strength, flexibility, and agility.

57-111. *Beginning Racquetball*

A course designed to provide instruction in the rules, skills, and strategies of playing four-wall racquetball, including singles, doubles, and "cut-throat" (three-man) play.

57-200. *Developmental Physical Education*

This course provides the information and the opportunity for cadets to meet the minimal criteria for health related fitness components established for the Corps of Cadets. Required for cadets who fail the college fitness test and those who are referred by the physical education department or cadet athletic officers. *This course will not meet graduation requirements.*

57-228. *Advanced Lifesaving (ARC)*

A course which meets the requirements of the American Red Cross and CNCA. Successful completion of the course may result in ARC certification.

57-233. *Water Safety Instruction (ARC)*

Prerequisite: 57-228 or valid advanced lifesaving certificate.

An instructor's course which may result in ARC certification for all levels of swimming.

Thirdclassmen (Sophomores)

All sophomore cadets must successfully complete two semesters of RPE selected from the following courses.

57-220. *Archery*

A course which provides instruction in the basic knowledge and skills of target archery.

57-221. *Badminton*

A course which teaches knowledge, skills, and strategy necessary to participate in badminton as a lifetime sport.

57-222. *Bowling*

A course which teaches etiquette, scoring, and basic skills necessary to participate in bowling as a recreational pursuit.

57-223. *Fencing*

A course which teaches basic knowledge, skill, and strategy of competitive foil fencing.

57-224. *Beginning Golf*

A course which teaches grip, stance, and swing development, as well as knowledge of rules and strategy of recreational and competitive golf.

57-225. *Handball*

An introduction to the rules, skills, and strategies required for singles, doubles, and "cut-throat" (three-man) play.

57-226. *Judo*

A comprehensive coverage of the history, dojo etiquette, ukemi (breakfall), nagewaza (throwing), and ne-waza (grappling) techniques.

57-227. *Skin and Scuba Diving*

Techniques of using mask, snorkel, and fins and scuba equipment are taught. Materials are presented to acquaint the student with information related to underwater physics and physiology.

57-228. *Advanced Lifesaving (ARC)*

A course which meets the requirements of the American Red Cross and CNCA. Successful completion of the course may result in ARC certification.

57-229. *Beginning Tennis*

A course which emphasizes grip, stance, footwork, and basic movement patterns in the execution of serve and ground strokes and stresses knowledge of rules and etiquette.

57-230. *Weight Training*

A course which stresses proper lifting techniques as well as knowledge concerning the relationship between weight training and various sports programs.

57-231. *Trampolining*

A course covering basic, intermediate, and advanced skills and routines in which the student progresses at his own rate.

57-232. *Volleyball*

A course which teaches the serve, pass, set, and spike as well as the knowlege and strategy necessary to participate successfully in team play.

57-233. *Water Safety Instructor (ARC)*

Prerequisite: 57-228 or valid advanced lifesaving certificate.

An instructor's course which may result in ARC certification for teaching all levels of swimming.

57-234. *Jogging*

A course which presents jogging as a means of developing and maintaining a satisfactory level of cardiovascular fitness.

57-235. *Intermediate Tennis*

Prerequisite: 57-229 or equivalent.

This course requires minimal skills (serve, forehand, and backhand ground strokes) and presents more advanced skills such as lob, smash, and net play in addition to advanced strategy in singles and doubles play.

57-236. *Sailing and Canoeing*

A course which includes basic knowledge and skill concerning small sailing craft and canoes.

57-237. *Soccer*

A course designed to present the student the skill, knowledge, and strategy necessary for successful participation in recreational or competitive soccer.

57-238. *Track and Field*

A course which introduces the student to basic running and field events, emphasizing the mechanics, skills, and strategies necessary for successful participation.

57-239. *Flag Football*

A version of football, modified to limit contact, with special emphasis on rules and strategies of play.

57-240. *Sigma Delta Psi*

A course designed to prepare the student for the tests administered by this national athletic facility.

57-241. *Modern Bicycling*

A study of modern multispeed bicycling, emphasizing the elements of care, maintenance, and safety and the techniques of physical preparation for racing and touring. Students must have their own bicycles.

57-242. *Orienteering*

A presentation of the skills for cross-country running with map and compass.

57-243. *Water Skiing*

A progressive presentation of water skiing skills from land drills through proper power boat handling to basic, intermediate, and advanced techniques with the double and single (slalom) equipment.

57-244. *Beginning Snow Skiing*

A comprehensive course which includes pre-skiing conditioning, dressing for the elements, equipment, chairlift and tow-rope safety, and skiing under various conditions.

57-245. *Intermediate Snow Skiing*

Prerequisite: 57-244 or satisfactory performance of skiing fundamentals.

An intermediate course which includes the application of the techniques involved in edge control and carving which will develop the individual's interest in moguls, racing, free style, ballet, and aerials.

Intramural Athletic Program

The intramural athletic program represents an integral part of the cadet's life and is, therefore, strongly recommended for all cadets not involved in intercollegiate athletics or comprehensive sports clubs. The program consists of 23 activities including both individual and team sports. All team activities have been separated for freshman and upperclass participation to give all cadets an opportunity to engage in the more vigorous competitive sports.

Badminton
Basketball (FR)
Basketball (UC)
Basketball Golf
Bowling (FR)
Bowling (UC)
Table Tennis
Team Handball
Tennis
Flag Football (FR)
Flag Football (UC)
Golf
Gymnastics
Handball
Racquetball
Track
Volleyball (FR)
Volleyball (UC)
Sigma Delta Psi
Soccer
Softball (FR)
Softball (UC)
Steeplechase
Swimming
Wallyball
Water Polo
Weight Lifting
Wrestling

Note: For further information regarding the intramural program see the handbook, *Intramurals, Sports Clubs and Recreation—The Citadel.*

Sports Club Program

The Sports Club program is administered through the Department of Physical Education by a council composed of representatives from each of the various clubs. Currently bicycling, bowling, crew, fencing, gymnastics, judo, karate, lacrosse, parachute, pistol, rugby, sailing, and surfing clubs hold membership on the council.

Note: For further information regarding the Sports Club Program see the handbook, *Intramurals, Sports Clubs and Recreation—The Citadel.*

THE PHYSICAL EDUCATION MAJOR

The purpose of the professional preparation program is to prepare the major for selected involvement within the broad field of physical education while maintaining reasonable flexibility for adaptation beyond the specialty area. This is accomplished through the offering of six professional opportunities within two tracks, the teaching track and the non-teaching track.

The Teaching Track

Admissions requirements for all teacher education programs are presented in the Department of Education section of this catalogue.

The professional physical education teacher must have an understanding of the meaning and significance of movement, the growth and development of the individual, and the application of physical, biological, and behavioral sciences to the actual teaching/learning process. The curriculum for the prospective physical education teacher is designed to build progressively upon meaningful concepts and experiences acquired within other disciplines as well as those which are unique to the profession. In addition, competencies which have been identified with successful teaching methodology are an integral part of the curricular content.

Completion of the curricular requirements may result in certification by the South Carolina Department of Education to teach physical education in grades K-12.

Additional certification in health education may also be pursued through electives in the following courses.

*47-303	Human Anatomy	3 credit hours
*47-304	Human Physiology	3 credit hours
47-406	Ecology	4 credit hours
51-309	Psychology of Individual Behavior	3 credit hours
*58-300	First Aid and Emergency Care	3 credit hours
58-401	Nutrition	3 credit hours
58-402	Drug and Substance Abuse	3 credit hours
58-403	Human Sexuality	3 credit hours
58-404	Public Health	3 credit hours
58-405	Health Problems in the Classroom	3 credit hours
*58-406	The School Health Program	3 credit hours

*Required Courses

The Non-Teaching Track

Alternatives to the teaching of physical education are available through each of five specialty areas: Sports Programming, Health Services, Physical Therapy, Athletic Training, and Exercise Science.

The *Sports Programming* specialty is designed to prepare the student for a multitude of professional opportunities which include community and industrial recreation, resident and day camp operation, resort sports programming, and college/university intramural/recreational sports. Specific preparation in communication skills, administrative techniques, psychological and sociological foundations, and organizational skills are presented through a concentration of 5 courses selected from among the following:

59-417	Intramural and Recreation Programs	3 credit hours
59-408	Introduction to Sports Psychology	3 credit hours

59-433	Elementary School Physical Education	3 credit hours
36-201	Introduction to Computer Science I	3 credit hours
5-409	Personnel Management	3 credit hours
61-201	Sociology	3 credit hours
61-202	Social Problems	3 credit hours

The *Health Services* specialty is structured to prepare the student for professional opportunities within the scope of public and private health agencies. Selected preparation in the biological sciences, contemporary health issues, personal and social relationships and public health programming is accomplished through the completion of 5 courses selected from the following:

47-310	Microbiology	4 credit hours
47-404	Ecology	4 credit hours
51-201	General Psychology	3 credit hours
51-309	Psychology of Individual Behavior	3 credit hours
51-403	Psychology of Learning & Motivation	3 credit hours
58-403	Human Sexuality	3 credit hours
58-404	Public Health	3 credit hours
61-201	Introduction to Sociology	3 credit hours
61-202	Social Problems	3 credit hours
61-304	Abnormal Psychology	3 credit hours

The *pre-Physical Therapy* specialty includes those courses which are required for admission to various physical therapy programs throughout the nation. Five courses are selected from the following:

26-205/255, 26-206/256	Physics for Biology and Premedicine	8 credit hours
or 26-203/253, 26-204/254	Physics for Liberal Arts	
40-103, 40-104	Introduction to Chemistry	6 credit hours
40-113, 40-114	Introduction to Chemistry Laboratory	2 credit hours
47-302	Comparative Vertebrate Anatomy	4 credit hours
51-201	General Psychology	3 credit hours

Three credit hours must be selected from one of the following: anthropology, economics, history, sociology, or political science.

The specialty in *Athletic Training* prepares the student for certification by the National Athletic Trainers Association through the field experience and examination provision. In addition, subject matter relevant to the field of athletic training is provided through 5 courses selected from the following:

51-201	General Psychology	3 credit hours
51-305	Social Psychology	3 credit hours
51-306	Theories of Personality	3 credit hours
51-309	Psychology of Individual Behavior	3 credit hours
51-403	Psychology of Learning and Motivation	3 credit hours
51-404	Applied Psychology	3 credit hours
59-408	Introduction to Sports Psychology	3 credit hours
59-432	Methods of Athletic Coaching	3 credit hours

The specialty in *Exercise Science* affords the outstanding undergraduate udent with the preparation essential for future graduate study in one of veral advanced areas leading to careers in adult physical fitness, habilitation, research, or higher education. Based upon interest and ptitude the student may select 5 courses from the following:

26-205/255, 26-206/256	Physics for Biology and Premedicine	8 credit hours
26-301	Biological Physics	4 credit hours
36-201	Introduction to Computer Science I	3 credit hours
40-207, 40-208	Organic Chemistry	6 credit hours
40-217, 40-218	Organic Chemistry Laboratory	2 credit hours
40-409	Biochemistry	3 credit hours
47-302	Comparative Vertebrate Anatomy	4 credit hours
47-308	Genetics	3 credit hours
47-310	Microbiology	4 credit hours
47-403	Mammalian Physiology	4 credit hours
47-413	Comparative Physiology	4 credit hours

OTE: The Exercise Science program includes General Chemistry 40-101, 0-102, 40-111, 40-112 to complete the physical science requirement.

Course Descriptions

9-101. *Introduction to Physical Education* Three Credit Hours

A study of the philosophies, aims, objectives, and principles of physical ducation as an integral part of the total education of man; past, present, nd future. Professional development and career opportunities are also mphasized.

9-102. *Learning Theory and Methodology in Physical Education* Three Credit Hours

A presentation of basic learning theory and methodology as related to he acquisition of gross motor skills.

Lecture: two hours; field experience: two hours.

59-205. *Measurement and Evaluation in Physical Education* Three Credit Hour

A course which includes test selection and administration, analysis, an interpretation of data for various cognitive, affective and psychomoto commonly associated with physical education.

Lecture: three hours.

59-240. *Methods of Teaching Wrestling* Two Credit Hours

Prerequisite: 59-101 or 50-201.

A course designed to explore the various aspects of wrestling such as the history and development, mechanical principles, training techniques, and offensive and defensive strategies.

Lecture: one hour; laboratory: two hours.

59-241. *Methods of Teaching Soccer* Two Credit Hours

Prerequisite: 59-101 or 50-201.

A comprehensive study of the history, rules, training techniques, strategies, and skills essential to the teaching of soccer.

Lecture: one hour; laboratory: two hours.

59-242. *Methods of Teaching Lifetime Sports* Two Credit Hours

Prerequisite: 59-101 or 50-201.

A methodological treatment of selected contemporary lifetime sports which may include, but not be limited to, racquet sports, golf, archery, and bowling.

Lecture: one hour; laboratory: two hours.

59-243. *Methods of Teaching Aquatics* Two Credit Hours

Prerequisites: 59-101 or 50-201 and 57-228 or valid lifesaving certificate.

A comprehensive coverage of teaching methods as applied to beginning through competitive swimming, basic through advanced lifesaving, aquatic games, and small craft safety.

Lecture: one hour; laboratory: two hours.

59-244. *Methods of Teaching Rhythmic Activities* Two Credit Hours

A methodological treatment of fundamental rhythmics, creative rhythmics, traditional dance steps, folk dance, square dance, social dance, singing games, and polyrhythmic activities for the elementary grades through high school.

Lecture: one hour; laboratory: two hours.

59-314. *Kinesiology* Three Credit Hours

Prerequisites: 47-303 and 47-304.

The anatomial and mechanical analysis of functional posture and motor performance for the purpose of understanding and recognizing efficient and inefficient movement.

Lecture: two hours; laboratory: two hours.

59-340. *Methods of Teaching Baseball* Three Credit Hours

Prerequisite: 59-101 or 50-201.

An in-depth study of the history, rules, development, equipment, theory, and strategy of contemporary baseball.

Lecture: one hour; laboratory: two hours.

59-341. *Methods of Teaching Track and Field* Two Credit Hours

Prerequisite: 59-101 or 50-201.

A thorough analysis of all aspects including historical, developmental, mechanical, and technical components.

Lecture: one hour; laboratory: two hours.

59-342. *Methods of Teaching Basketball* Two Credit Hours

Prerequisite: 59-101 or 50-201.

A comparative study of defensive and offensive systems of team play; analysis of the basic individual skills and team strategy; and interpretation of rules and knowledge of officiating.

Lecture: one hour; laboratory: two hours.

59-343. *Methods of Teaching Gymnastics* Two Credit Hours

Prerequisite: 59-101 or 50-201.

A presentation of historical and theoretical aspects of gymnastics, tumbling, and developmental activities with respect to skills, teaching methods, and the conduct of gymnastic meets.

Lecture: one hour; laboratory: two hours.

59-344. *Methods of Teaching Football* Two Credit Hours

Prerequisite: 59-101 or 50-201.

A comparative presentation of offensive-defensive systems of play with attention also given to the placement of personnel, training techniques, drills, rules, and strategies.

Lecture: one hour; laboratory: two hours.

59-345. *Methods of Adult Health and Physical Fitness* Two Credit Hours

A course designed to equip the student with the necessary skills and knowledge to plan and conduct a safe and effective program for others. The topics of basic exercise physiology, participant evaluation, program planning, exercise prescription writing and liability will be studied.

Lecture: one hour; laboratory: two hours.

59-400. *Internship in Teaching* Twelve Credit Hours

Observation and teaching in an approved school under the direction of a cooperating teacher and a college supervisor.

Lecture: two hours; field experience: twenty hours.

59-402. *Care and Prevention of Athletic Injuries* Three Credit Hours

Discussion, demonstration, and application of the skills and procedures utilized in athletic training.

Lecture: two hours; laboratory: two hours.

59-403. *Special Physical Education* Three Credit Hours

Identification of various physical, mental, and emotional anomalies with implications for physical education. Attention is given to procedures involved in "mainstreaming" the special student as well as procedures employed in the special school.

Lecture: two hours; laboratory: two hours.

59-404. *Administration of Physical Education* Three Credit Hours

A study of administrative philosophy and procedures which relate to curriculum and program development, finance, budgets and purchasing, and the legal aspects of teaching and coaching.

Lecture: three hours.

59-406. *Directed Field Experience* Three Credit Hours

Open as an elective to senior physical education majors only.

A controlled exposure to professional experiences in a selected area which may include, but not be limited to, athletic coaching, athletic training, physical therapy, intramurals, recreation, recreation therapy, and public health education.

Lecture: one hour; field experience: six hours.

59-408. *Introduction to Sports Psychology* Three Credit Hours

Analysis and interpretation of current research in the areas of maturation and development, learning theory, perception, personality, motivation, and group dynamics which relate directly to physical education and competitive athletics.

Lecture: three hours.

59-417. *Intramural and Recreation Programs* Three Credit Hours

A study of the history, philosophy, and practical and theoretical bases of intramural and recreational programs.

Lecture: three hours.

59-419. *Physiology of Exercise* Three Credit Hours

Prerequisites: 47-303 and 47-304.

An in-depth study of the effect of exercise upon the components of physical fitness, including, but not limited to, strength, muscular endurance, flexibility, and cardiovascular-respiratory endurance.

Lecture: two hours; laboratory: two hours.

59-420. *Senior Research Project* Three Credit Hours

A research problem conducted as an independent study. The topic and procedure for this study must be approved by the department faculty.

59-421. *Senior Seminar* One Credit Hour

A seminar conducted for the purpose of reviewing subject matter from all courses in the physical education curriculum and which culminates in a comprehensive written and oral examination.

59-431. *Administration of Interschool Athletics* Three Credit Hours

A study of the policies and procedures involved in interschool athletic administration.

Lecture: three hours.

59-432. *Methods of Athletic Coaching* Three Credit Hours

A practical application of research in the areas of learning conditions, practice and training schedules, and selection, analysis, and placement of skills; evaluation and selection of personnel; and coach-player interaction.

Lecture: three hours.

59-433. *Elementary School Physical Education* Three Credit Hours

A study of the progressively graded program of activities for the elementary schools, grades K-6. Theoretical as well as practical material will be developed for each grade.

Lecture: three hours.

Health Education Courses

The following block of courses represents an opportunity for the student to take health education courses as electives within various curricula. These courses may then be applied toward teacher education in health education (24 semester hours).

58-101. *Personal and Community Health* Three Credit Hours

The presentation of a body of knowledge from the biological and social ciences considered essential in making sound decisions regarding health maintenance and conducive to the development of proper health values.

Lecture: three hours.

58-300. *First Aid and Emergency Care* Three Credit Hours

A comprehensive coverage of safety concepts and accident prevention as well as the presentation of specific topics such as the cursory examination, wounds, traumatic shock, asphyxia, cardiac arrest, burns, toxins, and bone, joint, and muscle injuries.

Lecture: three hours.

58-401. *Nutrition* Three Credit Hours

A detailed study of the primary nutrients essential to health with attention given to specific needs from infancy through adulthood. Current theories and practices related to physical and intellectual performances are also investigated. Contemporary topics are presented such as degenerative diseases, food-borne diseases, fad dieting, food additives, and health foods.

Lecture: three hours.

58-402. *Drug and Substance Abuse* Three Credit Hours

An in-depth study of the characteristics of commonly abused drugs and substances and the reasons for their abuse.

Lecture: three hours.

58-403. *Human Sexuality* Three Credit Hours

A comprehensive presentation of all facets of human sexuality with attention given to appropriate methods of instruction for elementary, middle, and secondary schools.

Lecture: three hours.

58-404. *Public Health* Three Credit Hours

An analysis of public health trends, services, funding, and organization of local, state, and federal agencies.

Lecture: three hours.

58-405. *Health Problems in the Classroom* Three Credit Hours

A course designed to provide the elementary, middle, and high school classroom teacher with the knowledge to identify, manage, or refer health problems commonly encountered in the school environment. Available to physical education majors as an elective with the approval of the department head.

Lecture: three hours.

58-406. *The School Health Program* Three Credit Hours

A study of the total school health program and the role of the teacher within the program.

Lecture: three hours.

58-407. *Methods and Materials in Health Education* Three Credit Hours

A course designed to prepare the potential health educator in the areas of curriculum design at all grade levels, teaching methods, teaching styles, and evaluation.

Lecture: three hours.

58-408. *Health and Epidemiology* Three Credit Hours

A course designed to acquaint the potential health educator or public health worker with the science of epidemiology and the techniques used in the study of disease frequency.

Lecture: three hours.

58-409. *Workshop in Family Life Education* Three Credit Hours

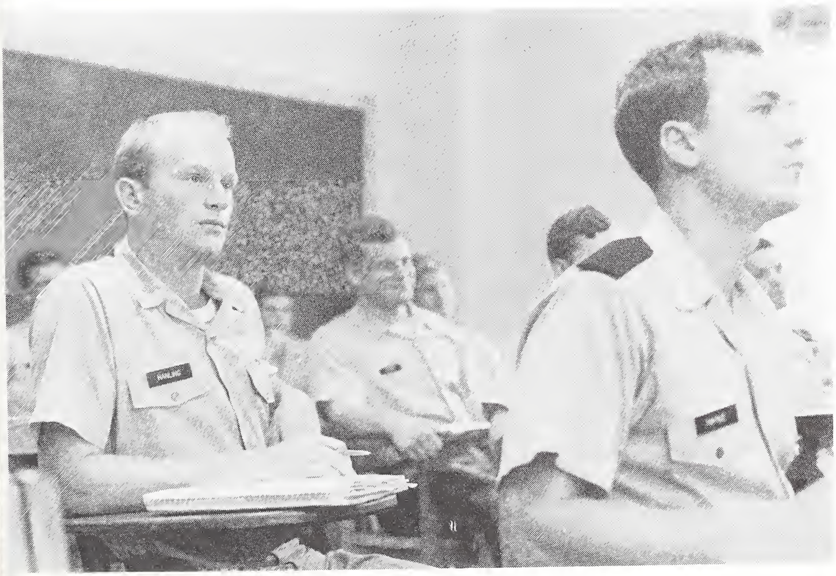
A course designed to prepare the health educator in the promotion and teaching of family life education in the schools. The course will focus on promotion, planning, and implementation of program at all grade levels.

Lecture: three hours.

58-410. *Consumer Health* Three Credit Hours

A course designed to provide factual, and scientifically based information about medical goods and services as well as development of consumer skills in the areas of decision-making, values clarification, assertiveness, bargaining, bidding, data collection, and data analysis.

Lecture: three hours.



Department of Physics

Professors: Hurren, Berlinghieri
Associate Professors: Byrd, Adelman, Briggs
Assistant Professors: Rembiesa

Physics, the study of matter and radiation, is basic to all other sciences and to engineering disciplines. Developments such as radar, the transistor, integrated circuitry, lasers, computers, and space science were primarily the creations of the research physicist, and present-day research in fundamental particles, plasmas, field theory, and solid-state physics has produced a rich harvest of revolutionary devices.

The Department of Physics offers three introductory sequences. For the non-science major, 26-203/253 and 26-204/254 (Physics for Liberal Arts Majors) constitute a survey sequence which emphasizes basic principles, with particular attention paid to the exciting developments of today's research efforts and applications to modern technology. For the biologist and potential doctor or dentist, 26-205/255 and 26-206/256 (Physics for Biology and Premedicine) offer the basic principles, but with emphasis on the ideas and techniques which apply to these fields. For the scientist, engineer, and mathematician, and for students preparing to be secondary school teachers in General Science or Physical Science, 26-210/260, 26-211/261, and 26-212/262 (Physics for Engineers and Physical Scientists) cover the fundamental principles of physics using some elementary calculus. Descriptive courses in elementary astronomy, 26-201 and 26-202, are provided as electives. All basic science sequences have concomitant laboratories.

The program for physics majors is flexible. The student who does not intend to make physics his profession can at the discretion of the head of the department replace up to six credit hours of physics courses numbered above 300 with courses numbered above 300 in other science fields.

The physics student who plans to attend graduate school or to work in an industrial, testing, or government institution will find the physics curriculum complete and rigorous. Upper-division courses cover electronics, classical mechanics, electromagnetic theory, thermodynamics, optics, quantum mechanics, and mathematical methods. Of special note are courses 419 (Research Planning) and 420 (Senior Research Project). These two courses give the advanced student an opportunity to apply his education to a theoretical or experimental study project, or to the design and construction of apparatus.

The department sponsors a student section of the American Institute of Physics to provide extracurricular activities and training for physics students.

26-101. *Introduction to Physics* Two Credit Hours

Required of all freshmen majoring in Physics.

An elementary course consisting of lectures on physics topics in their historical context from Galileo to the present. Class notes and library reading will be required.

Lecture: two hours.

26-201. *Astronomy* Three Credit Hours

A descriptive treatment of the general astronomy of the solar system. The constellations as seen from our moving Earth, along with a study of the planets, comets, and their origins. Observational activities may be provided. 26-251 laboratory is optional.

Lecture: three hours.

26-202. *Astronomy* Three Credit Hours

The universe outside the solar system. The sun as a typical star. The Milky Way and other galaxies are studied along with their past and future. Explanations of pulsars, quazars, novae, cosmic dust. Finally, discussion of the extent of the universe, and current cosmological models. This course may be taken independently of 26-201. 26-252 laboratory is optional.

Lecture: three hours.

26-203 and 26-204. *Physics for Liberal Arts Majors* Three Credit Hours Each Semester

Prerequisite or corequisite for 26-203: 26-253.

Prerequisites for 26-204: 26-203 and 26-253.

Prerequisite or corequisite for 26-204: 26-254.

This course presents physics in a manner suitable for students who do not have a strong mathematical background. The course is designed primarily to help the non-scientist act in an informed way in today's technically oriented society. Topics covered in the two-semester course include mathematics, thermodynamics, electromagnetism, optics, and modern physics.

Lecture: three hours.

26-205 and 26-206. *Physics for Biology and Premedicine* *Three Credit Hours* Each Semester

Prerequisites for 26-205: 30-105 and 30-106 or 30-106 and 30-107.

Prerequisite or corequisite for 26-205: 26-255.

Prerequisites for 26-206: 26-205 and 26-255.

Prerequisite or corequisite for 26-206: 26-256.

Required of all premedical, biological, and science students who do not take 26-210, 26-211, and 26-212.

A course designed to stress the principles and unifying concepts of classical and modern physics with emphasis directed toward biological applications. General topic headings covered in this course include kinetics and dynamics, heat, wave motion, electricity and magnetism, optics, and nuclear physics.

Premedical, predental, and preveterinary students, as well as biological science majors, will find this course particularly useful in preparing for careers.

Lecture: three hours.

26-210, 26-211, and 26-212. *Physics for Engineers and Physical Scientists* Three Credit Hours Each Semester

Prerequisite for 26-210: 30-131 (Analytic Geometry and Calculus I). (May be taken concurrently with 30-131 with permission of the heads of the student's major department and the Department of Physics.)

Prerequisite or corequisite for 26-210: 26-260.

Prerequisites for 26-211: 26-210 and 26-260.

Prerequisite or corequisite for 26-211: 26-261.

Prerequisites for 26-212: 26-211 and 26-261.

Prerequisite or corequisite for 26-212: 26-262.

Calculus-based introductory physics sequence.

Kinematics, dynamics, electricity and magnetism, wave motion and sound, fluid statics and dynamics, thermodynamics, optics, and modern physics covered with no assumption of prior knowledge of physics.

Lecture: three hours.

26-210 formerly numbered 26-110.

26-251 and 26-252. *Astronomy Laboratory* One Credit Hour Each Semester

Prerequisite or corequisite for 26-251: 26-201.

Prerequisite or corequisite for 26-252: 26-202.

These laboratory courses are closely correlated with the lecture material in 26-201 and 26-202, respectively. 26-251 provides an introduction to the basic laboratory methods in planetary astronomy, including telescopic observation and photographic techniques. 26-252 introduces basic laboratory methods in stellar and galactic astronomy, including telescopic observations, photographic techniques, and astronomical literature. Both day and evening observing sessions will be scheduled for both laboratories.

Laboratory: two hours.

26-251 and 26-252 formerly numbered 26-217 and 26-218.

26-253 and 26-254. *Physics Laboratory for Liberal Arts Majors* One Credit Hour Each Semester

Prerequisite or corequisite for 26-253: 26-203.

Prerequisite or corequisite for 26-254: 26-204.

These laboratories are designed to correlate with the lecture material in 26-203 and 26-204, respectively. The experiments are designed to illustrate and emphasize the physical phenomena discussed in the corresponding lecture courses.

Laboratory: two hours.

26-255 and 26-256. *Physics Laboratory for Biology and Premedicine* One Credit Hour Each Semester

Prerequisite or corequisite for 26-255: 26-205.

Prerequisite or corequisite for 26-256: 26-206.

Required of all biological science and premedicine students.

It is intended that the experiments in these laboratories follow the lecture material in 26-205 and 26-206, respectively. Laboratory technique and report writing will be emphasized. The experiments are arranged to correlate with the physical principles discussed in the corresponding lecture courses.

Laboratory: two hours.

26-260, 26-261, and 26-262. *Physics Laboratory for Engineers and Physical Scientists* One Credit Hour *Each Semester*

Prerequisite or corequisite for 26-260: 26-210.

Prerequisite or corequisite for 26-261: 26-211.

Prerequisite or corequisite for 26-262: 26-212.

Required of all students majoring in chemistry, engineering, mathematics, and physics.

The laboratories parallel and supplement the lecture material in 26-210, 26-211, and 26-212, respectively. Experiments utilize much modern equipment including microwave apparatus, oscilloscopes, spectrometers, etc. All areas of basic physics are covered, including measurement, statics, linear and rotational dynamics, wave phenomena, sound, light, thermodynamics, electricity, and magnetism. Emphasis is placed on proper experimental technique, error analysis, and technical report writing.

Laboratory: two hours.

26-301. *Biological Physics* Three Credit Hours

Prerequisites: 26-206 and 26-256, or 26-212 and 26-262; 30-107 or 30-132; and 40-102 or 40-106.

The applications of physics to the processes occurring in living systems. Among the topics to be discussed will be bioenergetics, radiation, biophysics, sensory biophysics, and bioelectricity. Attention also will be given to biomedical instrumentation.

Lecture: three hours.

26-307. *Electronic Instrumentation* Three Credit Hours

Prerequisites: 26-206 and 26-256, or 26-212 and 26-262; 30-107 or 30-231.

Corequisite: 26-357.

Required of all physics juniors; open to other science majors. Not intended for electrical engineering majors.

Brief review of DC and AC circuits. Introductions to theory and applications of solid-state diodes, transistors and other semiconductors, amplifiers, waveform generators, operational amplifiers, transducers, and digital electronics.

Lecture: three hours.

Formerly numbered 26-220.

26-308. *Optics* Three Credit Hours

Prerequisites: 26-212 and 26-262; 30-231.

Required of all physics juniors, open to others.

Principles of geometrical and physical optics presented with attention to engineering applications. Topics covered include geometrical imaging, a-b ray analysis, fiber optics, interferometry, thin film optical filters, and polarization. Matrix methods are applied to lens systems, thin films, and polarization.

Lecture: three hours.
Formerly numbered 26-305.

26-313. *Modern Physics* Three Credit Hours
Prerequisites: 26-212 and 26-262; 30-231.

Required of all physics juniors; open to others with the permission of the instructor.

The fundamental experiments and their interpretation that led to the development of relativity and quantum mechanics from classical physics. Emphasis is placed on the so-called "semi-classical" period in physics, 1900-1925.

Lecture: three hours.

26-315 and 26-316. *Analytical Mechanics* Three Credit Hours Each Semester
Prerequisites: 26-212 and 26-262; 30-231.

Required of all physics juniors; open to others.

Statics and dynamics of rigid bodies, Lagrangian and Hamiltonian dynamics, collision kinematics, central-force motion, oscillating systems, introduction to relativity.

Lecture: three hours.

26-320. *Mathematics Physics* Three Credit Hours
Prerequisites: 26-212 and 26-262; 30-231.

Required of all physics juniors.

Emphasis on mathematical methods of theoretical physics. Topics may include coordinate transformations, vector calculus techniques, special functions, definite integrals, approximations, numerical methods of data reduction, eigenvalue problems, boundary-value problems, representation theory, perturbation theory.

Lecture: three hours.

26-357. *Electronic Instrumentation Laboratory* One Credit Hour
Corequisite or prerequisite: 26-307.

Required of all physics majors. Open to others only with the permission of the instructor.

Laboratory parallels and supplements lecture material in 26-307.

Laboratory: two hours.

26-358. *Optics Laboratory* One Credit Hour
Corequisite or prerequisite: 26-308.

Required of all physics majors. Open to others only with the permission of the instructor.

This course formerly was numbered 26-307.
Laboratory: two hours.
Formerly numbered 26-303.

26-403 and 26-404. *Electricity and Magnetism* Three Credit Hours Each Semester

Prerequisites: 26-212 and 26-262; 30-231.

Required of all physics seniors, open to others.

The electrostatic field and its effect on matter, the properties of magnetic fields and magnetic materials, electromagnetic effects, vector potentials, displacement currents, Maxwell's equations, Lorentz force on particles, periodic currents.

Lecture: three hours.

These courses formerly were numbered 26-311 and 26-312.

26-405 and 26-406. *Quantum Mechanics* Three Credit Hours Each Semester

Prerequisites: 26-308, 26-313, 26-316, and 26-320.

Required of all physics seniors, open to others.

An introductory course in quantum mechanics with emphasis on both physical principles and mathematical techniques. Stress is placed on understanding how quantum mechanics is used in explaining the behavior of physical systems.

Lecture: three hours.

26-409. *Intermediate Optics* Three Credit Hours

Prerequisite: 26-308.

Corequisite or prerequisite: 26-308 and 30-335.

This course is a continuation of Optics 26-308. It develops the Fourier analysis approach to physical optics. Topics covered include the optical transfer function, the wave theory of aberrations, spatial filtering, holography and applications, fiber optics, and nonlinear optics.

Lecture: three hours.

Formerly numbered 26-306.

26-410. *Thermodynamics* Three Credit Hours

Prerequisites: 26-212 and 26-262; 30-231.

Required of all physics seniors; open to others.

Principles of thermodynamics presented with attention to engineering applications. First and Second Laws of Thermodynamics, especially as applied to closed hydrostatic systems and open steady-flow systems. Concepts of internal energy, heat flow, enthalpy and entropy. Perfect gas processes. Carnot cycle for heat engines, heat pumps, refrigerators. Power output; mass flow equations; quality factor for mixed systems.

Lecture: three hours.

Formerly numbered 26-310.

26-412. *Stellar and Galactic Astrophysics* Three Credit Hours

Prerequisites: 26-211, or 26-204 and 30-234.

The structures, atmospheres, dynamics, and evolutions of stars. The techniques of stellar abundance analysis and spectral classification. The reduction, eigenvalue problems, boundary-value problems, representation theory, perturbation theory.

Lecture: three hours.

26-415. *Special Topics in Physics* Three Credit Hours

Prerequisite: 26-212 and 26-262 or permission of instructor.

Topics may vary by semester according to student interest and availability of instructor. The subject for a semester will be chosen from such topics as space physics, special relativity, and solid state physics.

Lecture: three hours.

Formerly numbered 26-407.

26-416. *Advanced Topics in Physics* Three Credit Hours

Prerequisites: 26-212 and 26-262 and permission of instructor.

Similar to 26-415. The subject for a semester will be chosen from such advanced topics as group theory in quantum mechanics, magnetic resonance, and plasma physics.

Lecture: three hours.

Formerly numbered 26-408.

26-419. *Research Planning* One Credit Hour

Required of all physics seniors.

An outstanding recent development is chosen by one or more students and studied intensively.

26-420. *Senior Research Project* Three Credit Hours

Prerequisite: 26-419.

Required of all physics seniors.

The work started in 26-419 (Research Planning) is applied in the laboratory, or if theoretical, to a better understanding of natural phenomena.

26-451. *Advanced Laboratory Physics* One Credit Hour

Required of all physics seniors.

Formerly numbered 26-417 and 26-403.

Department of Political Science

Professors: Boykin, Arcilesi, Baker, Benson, Steed, Moreland
Associate Professors: Kingston, Davis, Hudson
The John C. West Professor of Government: Twinam

The Department of Political Science offers a flexible major which permits each student to concentrate his study in the area of his interest while at the same time affording him an opportunity to obtain a broad liberal arts education that will enrich his life, acquaint him with the rights and responsibilities of citizenship, and prepare him for a satisfying career.

The course of study for students majoring in Political Science prescribes a set of core courses to introduce the student to the discipline. In addition, during the junior and senior years each major selects one of the following departmental subfields for specialization:

A. American Government and Politics.

B. International Politics and Military Affairs.

C. Law and Criminal Justice.

Additional information on the discipline of Political Science, the course of study, and the department's offerings in Sociology and Anthropology may be found in the paragraphs which follow.

The discipline of Political Science seeks to describe and explain political phenomena, including political institutions, the political process, political behavior, and contemporary political issues. The student is afforded an opportunity to obtain a broad knowledge of both foreign and domestic political systems. In addition, Political Science also studies the relationships of people with their governments, including the rights and responsibilities of citizens.

The Political Science program at The Citadel provides for its majors a broad understanding of political phenomena, enhanced by opportunities for study in the related disciplines of Economics, History, Sociology and Anthropology. The major is a flexible one, and it offers a variety of opportunities for its students. As the central element of a general education, Political Science provides preparation both for graduate education and for useful and satisfying careers. The majority of students interested in pre-law and in law enforcement in general choose Political Science as their major subject area. The major has especially strong appeal for those who anticipate careers in government, particularly in the Foreign Service, in public administration, in the military generally, and in both civilian and military intelligence agencies. The major also prepares students for graduate work in the social sciences. The Political Science curriculum is thus designed to be responsive to a variety of interests; however, a large proportion of the department's majors are interested in pre-law or law enforcement or are preparing for military service.

The Department of Political Science is also pleased to offer courses in both Sociology and Anthropology; some of these are incorporated in the Law and Criminal Justice subfield of the Political Science curriculum. In addition, these courses in Sociology and Anthropology supplement and enhance other disciplines such as Psychology, Education, History, and Business Administration.

Major Requirements

The Political Science major consists of fifteen courses (45 credit hours) within the department. In addition, the major establishes certain distributional requirements outside the department, and it provides for seven general (or free) elective courses which the student may use as he chooses. The complete course of study is presented in the Courses of Study section of this catalogue.

The fifteen courses required for a major in Political Science are distributed as follows: seven core courses, five subfield courses, and three Political Science electives.

First, each student is required to complete a specified core of seven courses which are scheduled throughout the four years of the major:

60-101	Introduction to Political Science	(fall, fr. yr.)
60-102	American National Government	(spring, fr. yr.)
60-231	International Politics	(fall, soph. yr.)
60-232	Comparative Politics	(spring, soph. yr.)
60-392	Political Theory	(spring, jr. yr.)
60-402	Public Administration	(fall, sr. yr.)
60-462	Constitutional Law: Civil Rights and Liberties	(spring, sr. yr.)

Second, no later than the beginning of the fall semester of the junior year, each major must select one of the department's subfields for course concentration during the junior and senior years. The three subfields are Subfield A: American Government and Politics, Subfield B: International Politics and Military Affairs, and Subfield C: Law and Criminal Justice. Each major must complete five courses within one subfield of his choice. Three of these courses are specifically required; the remaining two courses must be selected from the list of subfield electives as indicated below.

Third, to complete the required fifteen courses for major, each student must also complete three additional Political Science courses (60-), two of which must be chosen from the American Government and Politics subfield. The third must be either the Senior Research Project or an additional Political Science elective.

All courses within a subfield are open both to majors in other departments and to Political Science majors who are concentrating in one of the other two subfields.

Subfield requirements and electives are listed below.

Subfield A: American Government and Politics

JUNIOR YEAR

First Semester	**Second Semester**
American Parties & Politics, 60-301	Urban Politics, 60-302
Economics, 05-201	Economics, 05-202
American Politics Elective	Political Theory, 60-392
General Elective	General Elective
General Elective	General Elective
ROTC	ROTC

SENIOR YEAR

First Semester	**Second Semester**
Pol. Issues & Public Policy, 60-401	American Pol. Elective
American Politics Elective	American Politics Elective
Public Administration, 60-402	Constitutional Law, 60-462
General Elective	General Elective
General Elective	Senior Research Project, 60-498, or Departmental Elective, 60-
ROTC	ROTC

Required:

60-301 American Parties and Politics

60-302 Urban Politics
60-401 Political Issues and Public Policy

Subfield Electives (those selecting this subfield must complete at least four electives chosen from the following):

60-303 State and Local Government
60-304 American Political Thought
60-305 American Presidency
60-306 Legislative Process
60-307 Southern Politics
60-308 Public Opinion
60-403 Topics in American Government and Politics
60-499 Internship

Subfield B: International Politics and Military Affairs

JUNIOR YEAR

First Semester	**Second Semester**
International Law, 60-331	Nat. Security Pol., 60-332
Economics, 05-201	Economics, 05-202
American Politics Elective	Political Theory, 60-392
General Elective	General Elective
General Elective	General Elective
ROTC	ROTC

SENIOR YEAR

First Semester	**Second Semester**
Am. Foreign Relations, 60-431	Int. Politics Elective
American Politics Elective	Int. Pol. Area Elective
Public Administration, 60-402	Constitutional Law, 60-462
General Elective	General Elective
General Elective	Senior Research Project, 60-498, or Departmental Elective, 60-
ROTC	ROTC

Required:

60-331 International Law
60-332 National Security Policy
60-431 American Foreign Relations

Subfield Electives (those selecting this subfield must complete at least two electives chosen from any of the American Government and Politics courses listed above plus two subfield electives chosen from the following, one of which must be an area course):

60-333	International Organization
60-334	Problems in International Law & Organization
60-335	Comparative Foreign and Defense Policies
60-336	Russian Affairs
60-337	Far Eastern Affairs
60-338	Southeast Asian Affairs
60-339	Middle Eastern Affairs
60-340	Latin American Affairs
60-341	African Politics
60-342	Political Ideology and Violence
60-443	Topics in International Politics
60-499	Internship

Subfield C: Law and Criminal Justice

JUNIOR YEAR

First Semester	Second Semester
Law & Legal Process, 60-361	Crim. J. Proc., 60-362
Economics, 05-201	Economics, 05-202
American Politics Elective	Political Theory, 60-392
General Elective	General Elective
General Elective	General Elective
ROTC	ROTC

SENIOR YEAR

First Semester	Second Semester
Constitutional Law, 60-461	Constitutional Law, 60-462
Law & Crim. Justice Elective	Law & Crim. J. Elective
Public Administration, 60-402	American Politics Elective
General Elective	General Elective
General Elective	Senior Research Project, 60-498, or Departmental Elective, 60-
ROTC	ROTC

Required:

60-361	Law and Legal Process
60-362	Criminal Justice Process
60-461	Constitutional Law: Powers of Government

Subfield Electives (those selecting this subfield must complete at least two electives chosen from any of the American Government and Politics courses listed above plus two subfield electives chosen from the following):

- 60-305 American Political Thought
- 60-331 International Law
- 60-463 Topics in Law and Criminal Justice
- 60-499 Internship
- 61-201 Introduction to Sociology
- 61-302 Criminology

Electives not designated by subfield: majors who take one (or more) of the following courses must take that course as a departmental elective or as a general elective:

- 60-393 Contemporary Political Analysis
- 60-394 Scope and Methods in Political Science
- 60-396 Politics and the Media
- 60-492 Topics in Political Philosophy and Theory
- 60-498 Senior Research Project

60-101. *Introduction to Political Science* Three Credit Hours

Required of political science freshmen.

An introduction to politics in general and the discipline of Political Science in particular. Attention will be given to the basic questions and methods of Political Science with introductions to the subfields of the discipline.

60-102. *American National Government* Three Credit Hours

Formerly 60-101. Required of political science freshmen. Open to others.

A study of the American constitution background, the rights and iberties of persons, public opinion, voting behavior, political parties, nterest groups, and the organization and roles of the Presidency, the Congress, and the national Judiciary in policy formation and implementation.

60-231. *International Politics* Three Credit Hours

Formerly 60-405. Required of political science sophomores. Open to others.

An analysis of the international system, of the nation-state, the role of power in international politics, and the goals and instruments of a nation's foreign policy.

60-232. *Comparative Politics* Three Credit Hours

Formerly 60-204. Required of political science sophomores. Open to others.

An analysis of the various political systems in terms of institution structure, and function. Emphasis on the development of common criteri for the evaluation and comparison of these divergent systems.

60-301. *American Parties and Politics* Three Credit Hou
Formerly 60-304.

An analysis of the dynamics of American politics, with particula emphasis upon the factors entering into the formulation of publi opinion, the role of interest groups, and the nature and operation of th party system.

60-302. *Urban Politics* Three Credit Hour
Formerly 60-413.

A study of mass participation in urban political affairs, political partie on the local level, the municipal reform movement, and the alternativ approaches to the study of local political systems. Emphasis placed on th problems of local governments in metropolitan areas.

60-303. *State and Local Government* Three Credit Hour
Formerly 60-210.

A study of the role of the states in the American constitutional system the institutional organization of state governments and the relationship both between the states and the national government and among th various levels of state government.

60-304. *American Political Thought* Three Credit Hour
Formerly 60-309.

A study of the basic political ideas which have developed in respons to American constitutional, social, and economic conditions.

60-305. *American Presidency* Three Credit Hour
Formerly 60-310.

A study of the modern Presidency with attention to its origin and it historical and constitutional development. Emphasis placed on th examination of the various roles and functions of the President and on a analysis of Presidents in action.

60-306. *Legislative Process* Three Credit Hours
Formerly 60-311.

A study of the organizations and procedures of a legislative body with attention on its role in policy formation and its relationships with othe parts of a political and governmental system.

60-307. *Southern Politics* Three Credit Hours
Formerly 60-314.

A study of politics in the South in both regional and national contexts. Attention given to the politics of individual states and to an analysis of regional developments in such areas as race relations, political behavior, and party competition.

60-308. *Public Opinion and Political Behavior* Three Credit Hours
Formerly 60-422.

A systematic analysis of political attitudes and behavior in relation to techniques of opinion survey design and analysis, voting behavior, and mechanisms for influencing options.

60-331. *International Law* Three Credit Hours
Formerly 60-301.

A survey of international law as developed through treaties, customs, usages, and decisions of national and international tribunals.

60-332. *National Security Policy* Three Credit Hours
Formerly 60-313.

An examination of the components of United States Security policy. Consideration given to factors, both internal and external, affecting national security.

60-333. *International Organization* Three Credit Hours
Formerly 60-302.

A survey of the development and functions of international organizations, including the League of Nations, the United Nations, and other international agencies seeking to promote harmony among nations.

60-334. *Problems in International Law and Organization* Three Credit Hours

Formerly 60-308. Prerequisite: 60-331 (International Law) or permission of course instructor.

An advanced survey of the elements of the application of the basic principles of international law with additional attention given to selected problems of international organization. Emphasis given to an in-depth study of jurisdiction over aliens, state liability for official acts, international reclamations, the regulation of hostilities, treaties, war, and diplomacy.

60-335. *Comparative Foreign and Defense Policies* Three Credit Hours
Formerly 60-321.

A comparison and analysis of the foreign and defense policies of the Soviet Union, China, Britain, France, and selected Third World states, including an introduction to the defense strategies of the state and the relationship between foreign and defense policy in today's world.

60-336. *Russian Affairs* Three Credit Hours
Formerly 60-415.

An analysis of the geographic, demographic, economic, political, psychological, and military bases of Soviet power with emphasis on the objective techniques and operations of Soviet foreign policy.

60-337. *Far Eastern Affairs* Three Credit Hours
Formerly 60-409.

A survey of China from 1911 to the present, with emphasis on the rise of communism in China, on the structure and operation of the Chinese People's Republic, and on contemporary Chinese foreign policy.

60-338. *Southeast Asian Affairs* Three Credit Hours
Formerly 60-410.

A study of the development of selected countries in the area with emphasis on the problems of transition, ideological orientations, roles in the Soviet-American competition, and the importance of the area to the national interests and foreign policy of the United States.

60-339. *Middle Eastern Affairs* Three Credit Hours
Formerly 60-418.

A survey of the Middle East with emphasis on the role of the area in the foreign policy of the United States.

60-340. *Latin American Affairs* Three Credit Hours
Formerly 60-414.

A study of Latin America with emphasis on the traditional power elements and on the importance of the area to the foreign policy of the United States.

60-341. *African Politics* Three Credit Hours
Formerly 60-417.

An analysis of the politics and modernization of Africa with emphasis on the newly independent states of the continent with their political, cultural, demographic, and historical characteristics and on tribal factors influencing the process of modernization.

60-342. *Political Ideology and Violence* Three Credit Hours
Formerly 60-424.

A study of selected contemporary ideologies and political violence, focusing on radical ideologies, revolutionary movements, and transnational violence, and other factors which have important political consequences both domestically and internationally.

60-361. *Law and Legal Process* Three Credit Hours

Formerly 60-315.

A general survey of the American legal process (except for the criminal justice process) with emphasis on the nature and function of law, the organization of legal institutions (primarily the state and federal judiciaries), an introduction to civil law and the civil justice process, the roles of judges and lawyers, the judicial decision-making process, and the impact of court decisions.

60-362. *Criminal Justice Process* Three Credit Hours

Formerly 60-316.

An introduction to the American criminal justice system, including the history and philosophy of law enforcement, the nature of crime in the United States, an introduction to the substantive criminal law, the nature and theory of the criminal justice process from arrest to corrections, and the roles of the major actors in that process (police, prosecutors, defense lawyers, judges, and corrections personnel).

60-392. *Political Theory* Three Credit Hours

Formerly 60-407; replaces both 60-407 and 60-408.

Required of political science juniors. Open to others.

Major theoretical writing from the ancient Greeks to the present day; emphasis on a comparison of ideas and on the relationships between theories and contemporary problems.

60-393. *Scope and Methods in Political Science* Three Credit Hours

Formerly 60-320. Cannot be used as a subfield elective.

An examination of methods in the scientific study of political phenomena with emphasis given to the systematic study of politics and contemporary research problems in political science, including research design, data collection, data analysis, and computer applications.

60-394. *Contemporary Political Analysis* Three Credit Hours

Formerly 60-320. Cannot be used as a subfield elective.

An introduction to some of the more important approaches to contemporary political science. Emphasizes the importance of concept formation in developing general strategies for the study of political phenomena. Some of the approaches studied include group theory, politics as process, the power approach, systems theory, structural-functional analysis, communications theory, game theory, and the individualistic-psychological approaches.

60-396. *Politics in the Media* Three Credit Hours

Formerly 60-423. Cannot be used as a subfield elective.

An examination of theories of communication, of the relationships between the various types of media and the political world, of the impacts of media on political decision-making, and of political themes found in films, television, literature, and other media forms. Specific topics include the nature and impact of television journalism, the context and political themes of selected films and novels, and the political roles performed by electronic and other forms of media.

60-401. *Political Issues and Public Policy* Three Credit Hours

An introduction to political analysis through consideration of important contemporary American political issues as they relate to public policy; attention given to specific issues as well as the policy process (formulation, implementation, and evaluation of policy).

60-402. *Public Administration* Three Credit Hours

Formerly 60-305. Required of political science seniors. Open to others.

An introduction to the role of administration in the governmental process with emphasis on the principles of administration control, personnel, and fiscal management.

60-403. *Topics in American Government and Politics* Three Credit Hours

Prerequisite: 60-102 (American National Government) or permission of course instructor.

Course description: Selected special topics or problems in the general area of American government and politics; offered periodically as the special interests of faculty and students permit.

60-431. *American Foreign Relations* Three Credit Hours

Formerly 60-203.

A study of American foreign policy with emphasis on the institutions and processes in the making of foreign policy and on important problems and developments in the postwar years.

60-433. *Topics in International Politics and Military Affairs* Three Credit Hours

Formerly 60-406. Prerequisite: 60-231 (International Politics) or permission of course instructor.

Selected special topics or problems in the general areas of international politics and military affairs; offered periodically as the special interests of faculty and students permit.

60-461. *Constitutional Law: Powers of Government* Three Credit Hours

Formerly 60-401.

A study of the underlying and basic principles of the Constitution as reflected in the leading decision of the United States Supreme Court with special attention directed to judicial review as it has shaped the powers of Congress, the Presidency, and the federal Judiciary itself.

60-462. *Constitutional Law: Civil Rights and Liberties* Three Credit Hours

Formerly 60-402. Required of political science seniors. Open to others.

A study of the underlying and basic principles of the Constitution as reflected in the leading decisions of the United States Supreme Court with special attention directed to the Bill of Rights and the Thirteenth, Fourteenth, and Fifteenth Amendments.

60-463. *Topics in Law and Criminal Justice* Three Credit Hours

Prerequisite: 60-361 (Law and Legal Process) or permission of course instructor.

Selected special topics or problems in the general areas of public law and legal process; offered periodically as the special interests of faculty and students permit.

60-492. *Topics in Political Philosophy and Theory* Three Credit Hours

Prerequisite: Political Theory, 60-392, or permission of the course instructor. Cannot be used as a subfield elective.

Selected special topics in the general area of political philosophy and theory; offered periodically as the interests of faculty and students permit.

60-498. *Senior Research Project* Three Credit Hours

Formerly 60-420. Required of all seniors as a prerequisite to graduation; an approved departmental elective may be substituted.

An independent research project resulting in a formal paper, The project must be approved by the department head in consultation with an appropriate member of the faculty who will supervise the project; virtually any aspect of politics may be investigated. Especially recommended for those considering graduate or professional study.

60-499. *Internship* Three Credit Hours

Prerequisite: permission of department head.

Internships with government and other agencies may be periodically offered to combine academic training with professional experience. These may be offered in each of the three subfields and will count as a subfield elective.

Sociology

61-201. *Introduction to Sociology* Three Credit Hours

The scientific study of principles and comparisons in society and culture as these relate to population and communities, behavior systems, group collectivity and structure, social change, and institutions.

61-202. *Social Problems* Three Credit Hours

Analysis of deviant behavior and those factors affecting the disorganization of small groups, complex organizations, and societies.

61-302. *Criminology* Three Credit Hours

A study of crime, its causes, conditions, prevention, and treatment; a presentation of theories and hypotheses, supported by concrete facts, designed to assure the student that the theories proposed are based upon realities and exact observation.

61-304. *Minority Group Relations* Three Credit Hours

An examination of the substantive issues in the study of majority-minority group relations and social processes, and the cultural orientations which are associated with these issues.

61-305. *Small Groups* Three Credit Hours

Open to juniors and seniors only.

A review of group theory and research. Primary attention centers upon the development and operation of group structure and the internal workings of small groups within a sociological context. Task groups established to accomplish some specific goal are also examined along with those factors which make for group productivity.

61-306. *Population* Three Credit Hours

Size, growth, distribution, social and economic composition, and changes of the United States population; special topics include housing, religious affiliation, and political demography.

Anthropology

62-201. *General Anthropology* Three Credit Hours

Man's biological and cultural origins as studied by physical anthropologists, archaeologists, and linguists.

62-202. *Cultural Anthropology* Three Credit Hours

A comparative study of culture; habitat, technology, and economy; kinship and political organization; life cycles in primitive societies.

62-303. *Physical Anthropology* Three Credit Hours

Open to juniors and seniors only.

An introduction to physical or bioanthropology. The course examines the process of human development along with a review of the basic principles of physical and behavioral evolution based on the fossil record and the changing ecological, cultural, and social contacts.

62-305. *Native North Americans* Three Credit Hours

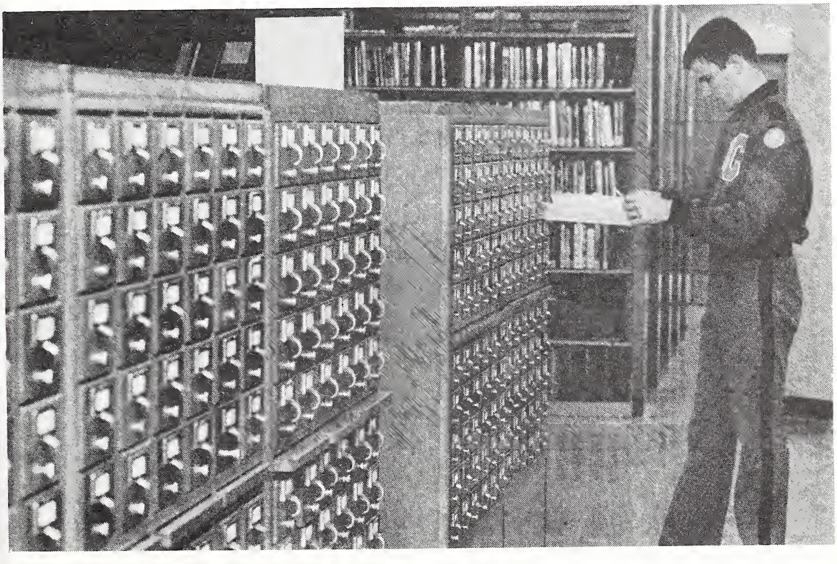
Open to juniors and seniors only.

A study of the society and culture of the North American Indian: environment; cultural adaptations; economic, political, and social organization and their influence upon the daily lives of people over the North American continent.

62-307. *Man's Prehistoric Past* Three Credit Hours

Open to juniors and seniors only.

An introduction to archaeology which looks at kinds of prehistoric data and the methods used to obtain and interpret it. Attention will center upon the lives of hunters, food producers, and early community settlements.



Department of Psychology

Professors: Bowman, Doran, Mahan
Associate Professor: Pietrangeli

The program in psychology emphasizes the contribution that psychology can make to a liberal education through stimulating intellectual development, personal growth and adjustment, respect for others, and a feeling of social responsibility. The curriculum in psychology is designed to familiarize the student with current experimental methods and theories in such fundamental areas of investigations as emotion, learning, memory, motivation, perception, personality, psychological testing, psychopathology, research design, and social interaction. By taking the required courses with various electives, the student will have an experimentally secure foundation for graduate work as well as the psychological skills essential for employment in certain types of jobs. Majors in psychology may find openings in personnel work, mental hospitals, schools for the handicapped, law enforcement, and many other positions of a similar nature. The department offers elective courses and supportive services to majors in other academic disciplines and, in cooperation with the Department of Education, has two graduate degree programs in the field of School Psychology.

A student majoring in psychology may expect to develop rigorous habits of observation with reference to psychological phenomena, to become aware of the need for statistical orientation in the consideration of psychological data, and to recognize the role of multiple causation in the determination of human behavior.

The major program in psychology, which leads to the Bachelor of Arts degree, consists of 39 hours of course work in psychology, including 51-201, 51-202, 51-203, 51-301, 51-302, 51-304, 51-305, 51-306, 51-403, 51-404, 51-405, 51-407, and 51-410. Those majors who elect chemistry or physics in the sophomore year may be required to enroll in 47-104 as one of their approved electives.

The Department of Psychology sponsors the Psychology Club, which serves to encourage, stimulate, and maintain interest and scholarship of the individual members in the varied facets of psychology and to promote closer social and intellectual association of psychology majors.

51-201. *General Psychology* Three Credit Hours

Elective for sophomores, juniors, and seniors.

An introduction to the scientific study of behavior; emphasis upon experimental investigation of such fields as perception, motivation, earning, emotions, physiology, and personality.

51-202. *Developmental Psychology* Three Credit Hours

A study of the development of the individual from prenatal to senescent stages, emphasizing growth in intelligence, motor behavior, perception, cognition, socialization, and emotion. Empirical findings and theoretical interpretations in the study of human behavior will be explored.

51-203. *Research Design in Psychology* Three Credit Hours

Prerequisite: 51-201.

An introduction to descriptive and inferential statistics used in psychological experimentation. Particular emphasis is placed upon hypothesis testing by means of the t-test and randomized designs of the analysis of variance.

51-301. *Experimental Psychology I* Three Credit Hours

Prerequisites: 51-201 and 51-203.

Comphrehensive treatment of research findings in experimental psychology in such areas as sensation and perception. Emphasizes the essential importance of rigorous hypothesis formulation and the design of experiments to test hypotheses.

51-302. *Experimental Psychology II* Three Credit Hours

Prerequisites: 51-201, 51-203, and 51-301.

A continuation of Experimental Psychology I.

51-304. *Abnormal Psychology* Three Credit Hours

Prerequisite: 51-201.

A study of fundamental theory and research in the area of abnormal behavior. Emphasis is on symptoms, etiology, and treatment of psychopathology and behavior problems.

51-305. *Social Psychology* Three Credit Hours

A study of the individual in relation to his social environment with special attention to group behavior, communication, conformity, leadership, aggression, and interpersonal attraction. May be considered a socia science course.

51-306. *Theories of Personality* Three Credit Hours

A study of major contemporary theories of personality with specia emphasis on the biological and psychological foundations and integrative aspects of personality.

51-309. *Psychology of Individual Behavior* Three Credit Hours

Not open to psychology majors.

A study of the human person, his development, his relation to social roles, and life crises. The emphasis will alternate between an analysis of available research and self-study in terms of values, patterns of behavior, and goals.

51-403. *Psychology of Learning and Motivation* Three Credit Hours

Prerequisite: 51-201.

A comprehensive and critical review of the experimental literature in the area of learning and motivation, including the major learning theories and the motivational determinants of behavior.

51-404. *Applied Psychology* Three Credit Hours

Prerequisite: 51-201.

Application of psychological principles to the world of work. Specific topics include concepts of work, job satisfaction, personnel selection, performance appraisal, human engineering, leadership, and organizational behavior.

51-405. *History and Systems of Psychology* Three Credit Hours

Prerequisite: 51-201.

Historical survey of psychology, emphasizing contributions of major "schools" of psychology, theories, their place in science, and current theoretical trends.

51-407. *Psychological Testing* Three Credit Hours

Prerequisite: 51-201.

A survey of the theory and principles of psychological testing, demonstration and discussion of representative tests of intelligence, aptitude, achievement, interests, and personality.

51-410. *Seminar in Contemporary Psychological Issues* Three Credit Hours

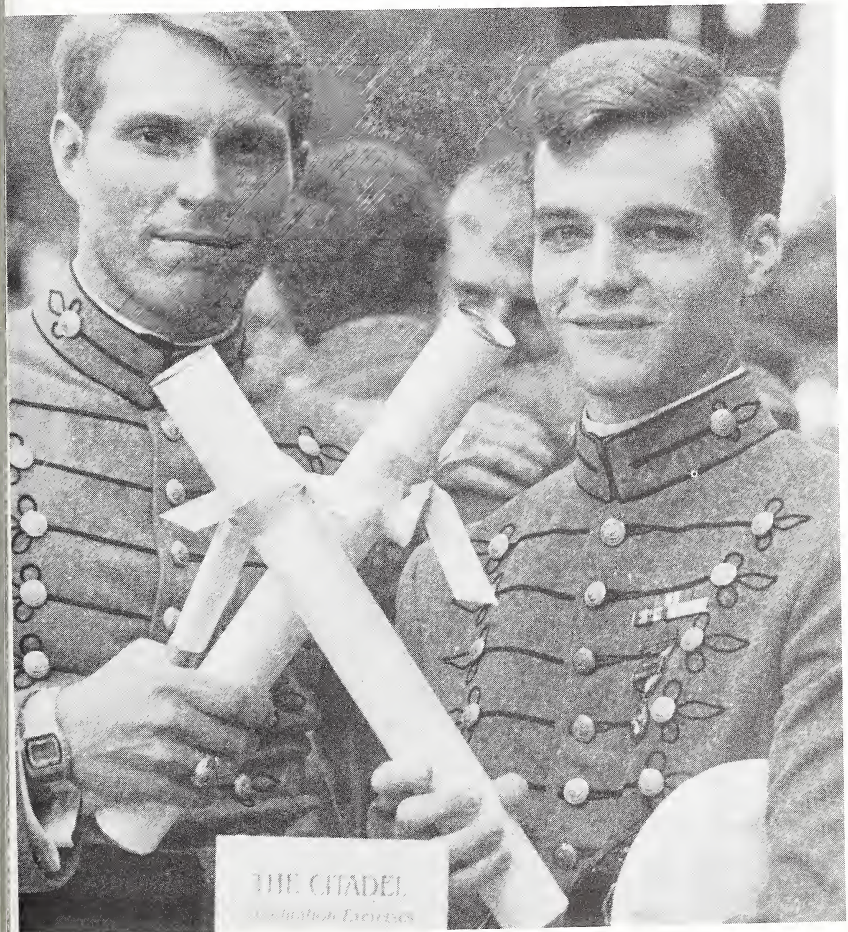
Required of all senior psychology majors; open to others with the permission of the instructor.

A study of selected critical issues in contemporary psychology, encompassing the various aspects of the discipline. Special emphasis will be given to integrating concepts, principles, and skills learned from earlier courses and related disciplines. Content in any semester to be determined by student needs.

51-420. *Senior Research Project* Three Credit Hours

Prerequisite: approval of department head.

An independent research project culminating in a formal paper. Recommended for students planning graduate study. Approval for enrollment based on capability of applicant and the acceptance of a written proposal.



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